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JVC LT-32WX84 SERVICE MANUAL

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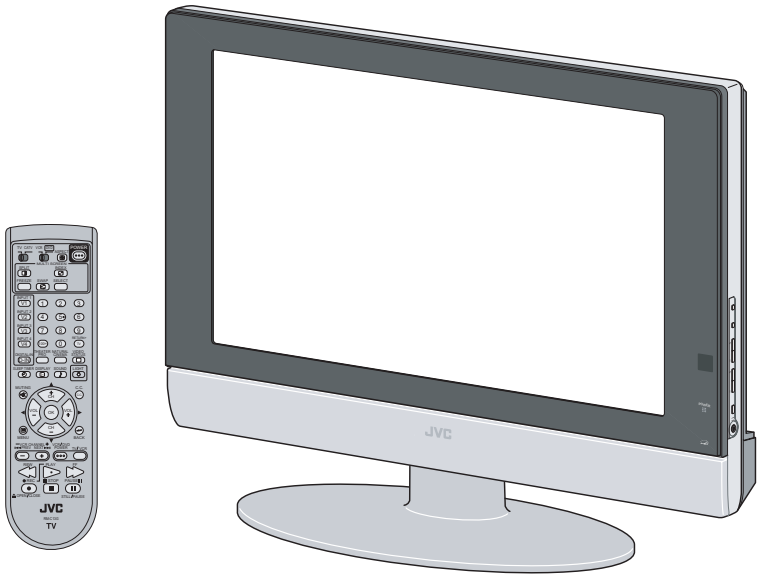
SERVICE MANUAL

LCD FLAT TELEVISION

LT-32WX84 /HA

BASIC CHASSIS
SB5



I'Art™ Palette

D.I.S.T. Digital Image Scaling Technology

BBE

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SPECIFICATION

Items		Contents
Dimensions (W × H × D)		83.3cm × 63.8 cm × 26.0 cm (32-7/8" × 25-1/8" × 10-1/4") [Included stand] 83.3cm × 56.9 cm × 9.7 cm (32-7/8" × 25-5/8" × 3-7/8") [TV only]
Mass		21.4 kg (47.1 lbs) [Included stand] 18.6 kg (39.1 lbs) [TV only]
Power Input		AC120V , 60Hz
Power Consumption		223W (Max)
TV RF System		CCIR (M)
Color System		NTSC
Sound System		BTSC (Multi Channel Sound)
TV Receiving Channels and Frequency	VHF Low VHF High UHF CATV	02ch~06ch : 54MHz~88MHz 07ch~13ch : 174MHz~216MHz 14ch~69ch : 470MHz~806MHz 54MHz~804MHz Low Band : 02~06, A-8 by 02~06&01 High Band : 07~13 by 07~13 Mid Band : A~I by 14~22 Super Band : J~W by 23~36 Hyper Band : W+1~W+28 by 37~64 Ultra Band : W+29~W+84 by 65~94, 100~125 Sub Mid Band : A4~A1 by 96~99
TV / CATV Total Channel		180 Channels
Intermediate Frequency	Video IF Sound IF	45.75 MHz 41.25 MHz (4.5MHz)
Color Sub Carrier		3.58 MHz
LCD panel		32-inch wide aspect (15:9)
Screen Size		Diagonal : 80.2cm (H:41.2cm × V : 68.7cm)
Display Pixels		Horizontal : 1280 dots × Vertical : 768 dots (W-XGA)
Audio Power Output		10W + 10W
Speaker		6.6cm, round type × 2 (Oblique corn)
Antenna terminal (VHF/UHF)		F-type connector, 75Ω unbalanced, coaxial
Video / Audio input Input-1/2/3	Component Video [Input-1] 1125i / 750p 525p / 525i S-Video [Input-1/2] Video Audio	RCA pin jack × 3 Y : 1V (p-p) (Sync signal: 0.35V(p-p), 3-value sync.), 75 Ω Pb/Pr : 0.35V(p-p), 75 Ω Y : 1V (p-p), Positive (Negative sync provided), 75 Ω Pb/Pr : 0.35V(p-p), 75 Ω Mini-DIN 4 pin × 2 Y: 1V (p-p), Positive (Negative sync provided), 75 Ω C: 0.286V (p-p) (Burst signal), 75 Ω 1V (p-p), Positive (Negative sync provided), 75 Ω, RCA pin jack × 3 500mV (rms), High impedance, RCA pin jack × 6
Digital-in	Video Audio	DVI-D 24-pin connector × 1 (Digital-input terminal is not compatible with computer signal) 500mV (rms), Low impedance, RCA pin jack × 2
Monitor output	S-Video Video Audio	Mini-DIN 4 pin × 1 Y: 1V (p-p), Positive (Negative sync provided), 75 Ω C: 0.286V (p-p) (Burst signal), 75 Ω 1V (p-p), Positive (Negative sync provided), 75 Ω RCA pin jack × 1 500mV (rms), Low impedance, RCA pin jack × 2
Headphone		3.5mm stereo mini jack × 1
Remote Control Unit		RM-C13G (AA/R6/UM-3 battery × 2)

Design & specifications are subject to change without notice.

SECTION 1
PRECAUTION

1.1 SAFETY PRECAUTIONS

(1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

(2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

(3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual**. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

(4) **Use isolation transformer when hot chassis.**
The chassis and any sub-chassis contained in some products are connected to one side of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point while performing any service on some products when the HOT chassis is exposed.

(5) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED (NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND.
Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.). If above note will not be kept, a fuse or any parts will be broken.

(6) If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See B1 POWER SUPPLY check).

(7) Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

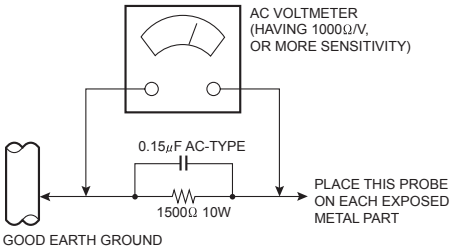
(8) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(9) **Isolation Check (Safety for Electrical Shock Hazard)**
After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

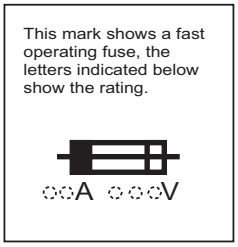
a) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1100V AC (r.m.s.) for a period of one second.
(. . . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.) This method of test requires a test equipment not generally found in the service trade.

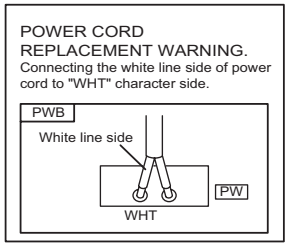
b) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000Ω per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



(10) **High voltage hold down circuit check.**
After repair of the high voltage hold down circuit, this circuit shall be checked to operate correctly.See item **"How to check the high voltage hold down circuit"**.

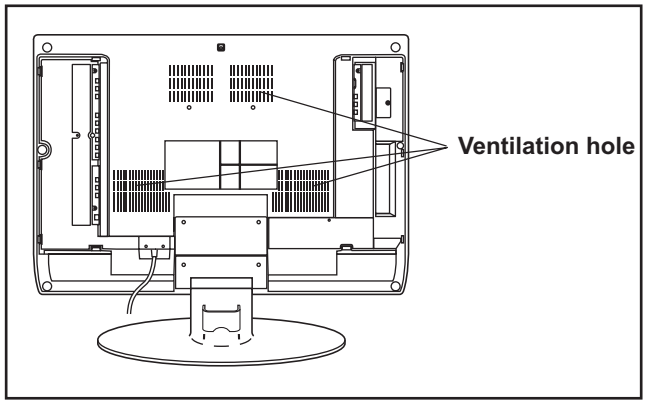




1.2 INSTALLATION

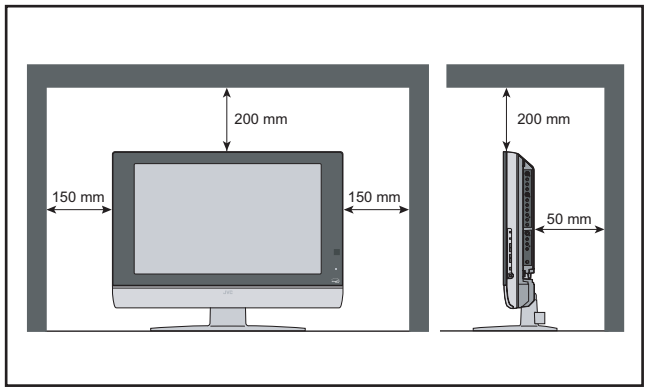
1.2.1 HEAT DISSIPATION

If the heat dissipation vent behind this unit is blocked, cooling efficiency may deteriorate and temperature inside the unit will rise. The temperature sensor that protects the unit will be activated when internal temperature exceeds the pre-determined level and power will be turned off automatically.Therefore, please make sure pay attention not to block the heat dissipation vent as well as the ventilation outlet behind the unit and ensure that there is room for ventilation around it.



1.2.2 INSTALLATION REQUIREMENTS

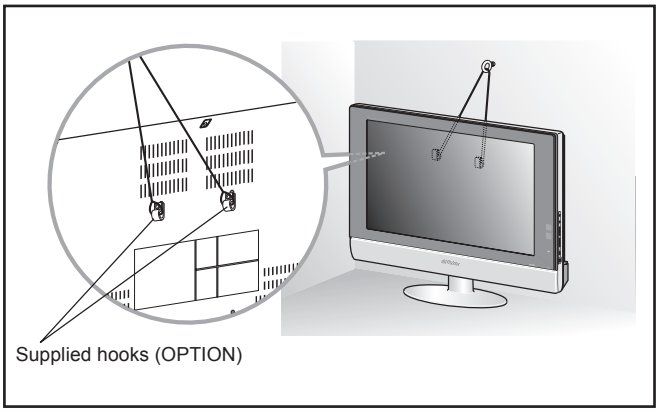
Ensure that the minimal distance is maintained, as specified below, between the unit with and the surrounding walls, as well as the floor etc.Install the unit on stable flooring or stands.Take precautionary measures to prevent the unit from tipping in order to protect against accidents and earthquakes.



1.2.3 INSTALLATION REQUIREMENTS

To ensure safety in an emergency such as an earthquake, and to prevent accidents, ensure that measures are taken to prevent the TV dropping or falling over.

Use the supplied screws to firmly attach the supplied hooks (OPTION) to the back of the TV, and use commercially available cord to fix the TV to rigid components such as walls and columns.



1.2.4 NOTES ON HANDLING

(1) WHEN TAKING UNIT OUT OF A PACKING CASE

When taking the unit out of a packing case, do not grasp the upper part of the unit. If you take the unit out while grasping the upper part, the LCD PANEL may be damaged because of a pressure. Instead of grasping the upper part, put your hands on the lower backside or sides of the unit.

(2) AS FOR PRESSING OR TOUCHING A SPEAKER

Be careful not to press the opening of the speaker in the lower part of the unit and around them since the decorative sheet on the surface of the openings may be deformed.

1.3 HANDLING LCD PANEL

1.3.1 PRECAUTIONS FOR TRANSPORTATION

When transporting the unit, pressure exerted on the internal LCD panel due to improper handling (such as tossing and dropping) may cause damages even when the unit is carefully packed. To prevent accidents from occurring during transportation, pay careful attention before delivery, such as through explaining the handling instructions to transporters.

Ensure that the following requirements are met during transportation, as the LCD panel of this unit is made of glass and therefore fragile:

(1) USE A SPECIAL PACKING CASE FOR THE LCD PANEL
When transporting the LCD panel of the unit, use a special packing case (packing materials). A special packing case is used when a LCD panel is supplied as a service spare part.

(2) ATTACH PROTECTION SHEET TO THE FRONT
Since the front (display part) of the panel is vulnerable, attach the protection sheet to the front of the LCD panel before transportation. Protection sheet is used when a LCD panel is supplied as a service spare part.

(3) AVOID VIBRATIONS AND IMPACTS
The unit may be broken if it is toppled sideways even when properly packed. Continuous vibration may shift the gap of the panel, and the unit may not be able to display images properly. Ensure that the unit is carried by at least 2 persons and pay careful attention not to exert any vibration or impact on it.

(4) DO NOT PLACE EQUIPMENT HORIZONTALLY
Ensure that it is placed upright and not horizontally during transportation and storage as the LCD panel is very vulnerable to lateral impacts and may break. During transportation, ensure that the unit is loaded along the traveling direction of the vehicle, and avoid stacking them on one another. For storage, ensure that they are stacked in 2 layers or less even when placed upright.

1.3.2 OPTICAL FILTER (ON THE FRONT OF THE LCD PANEL)

(1) Avoid placing the unit under direct sunlight over a prolonged period of time. This may cause the optical filter to deteriorate in quality and color.

(2) Clean the filter surface by wiping it softly and lightly with a soft and lightly fuzz cloth (such as outing flannel).

(3) Do not use solvents such as benzene or thinner to wipe the filter surface. This may cause the filter to deteriorate in quality or the coating on the surface to come off. When cleaning the filter, usually use the neutral detergent diluted with water. When cleaning the dirty filter, use water-diluted ethanol.

(4) Since the filter surface is fragile, do not scratch or hit it with hard materials. Be careful enough not to touch the front surface, especially when taking the unit out of the packing case or during transportation.

1.3.3 PRECAUTIONS FOR REPLACEMENT OF EXTERIOR PARTS

Take note of the following when replacing exterior parts (REAR COVER, FRONT PANEL, etc.):

(1) Do not exert pressure on the front of the LCD panel (filter surface). It may cause irregular color.

(2) Pay careful attention not to scratch or stain the front of the LCD panel (filter surface) with hands.

(3) When replacing exterior parts, the front (LCD panel) should be placed facing downward. Place a mat, etc. underneath to avoid causing scratches to the front (filter surface).

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 FEATURES

- New chassis design enable use of an interactive on screen control.
- MOTION COMPENSATION : With this function, the seamless reproduction of dynamic motion on the screen has been realized.
- Bullet-in 3 dimension Y/C separate circuit.
- Receive DTV broadcast (1125i / 750p / 525p / 525i)
- Built-in HDCP / Component (Y / Pb / Pr) input.
- Built-in Hyper Sound, BBE circuit.
- DIST is a digital high-definition image processing technology that converts various image input signals such as NTSC(525i), 525p, 750p, and 1125i into a format with the best resolution for a display device such as a plasma display panel, and displays high-definition images.

2.2 TECHNICAL INFORMATION

2.2.1 LCD PANEL

This unit uses the flat type panel LCD (Liquid Crystal Display) panel that occupies as little space as possible, instead of the conventional CRT (Cathode Ray Tube), as a display unit.
Since the unit has the two polarizing filter that are at right angles to each other, the unit adopts "normally black" mode, where light does not pass through the polarizing filter and the screen is black when no voltage is applied to the liquid crystals.

2.2.1.1 SPECIFICATIONS

The following table shows the specifications of this unit.

Item	Specifications	Remarks
Maximum dimensions (W × H × D)	76.4cm × 46.5cm × 3.8cm	
Weight	8.0kg	
Effective screen size	Diagonal : 80.2cm (H:41.2cm × V : 68.7cm)	32V type
Aspect ratio	15:9	
Drive device/ system	a-Si-TFT, active matrix system	
Resolution	Horizontally 1280 × Vertically 768 × RGB <W-XGA>	2949120 dots in total
Pixel pitch (pixel size)	Horizontally:0.4425mm, Vertically:0.4425mm	
Displayed color	16777216 colors	256 colors for R, G, and B
Brightness	470cd/m^2	
Contrast ratio	500:1	
Response time	13ms	
View angle	Vertically 170°, horizontally 170°	
Surface Polarizer	Anti-Glare type	
Color Filter	Vertical stripe	
Backlight	Cold cathode fluorescent lamp × 16	
Power Supply Voltage in LCD	12V	
Power Supply Voltage in Backlight	1290V (rms)	

2.2.1.2 PIXEL FAULT

There are three pixel faults - bright fault , dark fault and flicker fault - that are respectively defined as follows.

(1) BRIGHT FAULT

In this pixel fault, a cell that should not light originally is lighting on and off.
For checking this pixel fault, input ALL BLACK SCREEN and find out the cell that is lighting on and off.

(2) DARK FAULT

In this pixel fault, a cell that should light originally is not lighting or lighting with the brightness twice as brighter as originally lighting.
For checking this pixel fault, input 100% of each R/G/B colour and find out the cell that is not lighting.

(3) FLICKER FAULT

In the pixel fault, a cell that should light originally or not light originally is flashing on and off.
For checking this pixel fault, input ALL BLACK SCREEN signal or 100% of each RGB colour and find out the cell that is flashing on and off.

2.2.2 MAIN MICRO COMPUTER (CPU) FUNCTION

Pin No.	Pin name	I/O	Function
1	BS_RXD	O	Not used
2	MICON_V	I	Vertical sync for OSD / CLOSED CAPTION
3	LB_PRO	I	Low B protection detect [Detection : H]
4	NC	---	Not used
5	/RST	I	Reset [Reset : L]
6	HDMI_INT	I	Not used
7	/TEST	I	3.3V
8	OSD_YS	O	YS for OSD / CLOSED CAPTION
9	(DPCRST)	O	Not used
10	BS/DIN	O	Not used
11	(A_MU)(LED_5)	O	Not used
12	MICON_H	I	Horizontal sync for OSD / CLOSED CAPTION
13	(A_MU)(LED_4)	O	Not used
14	P46,OSDXI	---	Not used
15	P45,OSDXO	---	Not used
16	(SDA2)	I/O	Not used
17	AC_IN	I	AC power (60Hz) for time clock
18	(SCL2)	O	Not used
19	(TU_POW)	O	Not used
20	VCOI	I	LPF input
21	PDO	O	LPF output
22	/IP_RESET	O	Reset (L) [Reset : L]
23	OSD_YM	O	YM for OSD / CLOSED CAPTION
24	OSD_B	O	B signal output for OSD / CLOSED CAPTION
25	POW_LED	O	Lighting for power [Lighting : H]
26	OSD_G	O	G for OSD / CLOSED CAPTION
27	OSD_R	O	R for OSD / CLOSED CAPTION
28	VRE	I	Reference voltage
29	IP_ERR	I	AMDP program load
30	IREF	I	Reference current
31	COMP	I	Reference conpare
32	AVDD	I	3.3V
33	CLL	O	Not used
34	VREFLS	I	Reference voltage (For SUB CCD)
35	SUB_CCD	I	Not used
36	NC	---	Not used
37	VSS	I	GND
38	MAIN_CCD	I	Not used
39	VREFHS	I	Standard voltage (For Main CCD)
40	CLH	I	Not used
41	VDD/VPP	I	3.3V
42	CLKSW1	O	IP clock switch [ON : L]
43	CLKSW2	O	IP clock switch [ON : L]
44	ON_TIM	O	Not used
45	SBO01	O	Port for writing on board

Pin No.	Pin name	I/O	Function
46	SBD01	I	Port for writing on board / Communication (XTD) for SUB CPU
47	SBT1	I	Port for writing on board / Communication (RTD) for SUB CPU
48	HP_VOL	O	Headpone volume control (0V-3.3V)
49	/BS_RESET	O	Not used
50	HDMI_ASW	O	Not used
51	BS1.5CTL	O	Not used
52	ODU_OUT	O	Not used
53	15/11_SW	O	Not used
54	ODU_PRO	O	Not used
55	BS_POW	---	Not used
56	BS3.3CTL	O	Not used
57	AFT2	I	Not used
58	/LOB_POW	O	Low B power control [Detection : H]
59	COMPULING	I	Not used
60	/POWERGOOD	I	Power condition check [ON : L]
61	MECHA_SW	I	Mechanical (POWER) swtich detection [Pussing : L]
62	/MAIN_POW	O	Main power control [ON : L]
63	NC	---	Not used
64	(B1_POW)	O	Not used
65	AFT1	---	Not used
66	(X_RAY)	I	GND
67	(EE_CDS)	I	GND
68	KEY2	I	Key scan data [ON : H]
69	KEY1	I	Key scan data [ON : H]
70	SCL1	O	I^2C bus clock (For Main memory)
71	SDA1	I/O	I^2C bus data (For Main memory)
72	REMO	I	Remote control data
73	(AP_REQ)(LED_2)	O	Not used
74	VSS	I	GND
75	OSC2	O	4MHz oscillation for system clock
76	OSC1	I	4MHz oscillation for system clock
77	VDD	I	3.3V
78	SCL0	O	I^2C bus clock (For general)
79	(AP_CLK)(LED_1)	O	Not used
80	SDA0	I/O	I^2C bus data (For general)
81	BSLK(D_CLOCK)	O	Not used
82	BS_TXD(D_DATA)	I	Not used
83	NC	---	Not used
84	P_MU	O	Picture muting [Muting : H]

2.2.3 SUB MICRO COMPUTER (CPU) FUNCTION

Pin No.	Pin name	I/O	Function
1	(SYSTEM0)	I	GND
2	(SYSTEM3)	I	GND
3	AVCC	-	5V
4	X2	-	Not used
5	X1	-	Not used
6	VCL	-	Internal down voltage
7	RES	I	Reset [Reset : L]
8	TEST	I	Operation test for SUB CPU
9	VSS	-	GND
10	OSC2	O	10MHz oscillation for system clock
11	OSC1	I	10MHz oscillation for system clock
12	VCC	-	5V
13	NC	O	Not used
14	NC	O	Not used
15	BL_D2	O	Back light 20ms delay for LCD panel [On:L]
16	BL_D1	O	Back light 10ms delay for LCD panel [On:L]
17	I2C_STOP	O	Not used
18	BL_ON	O	Back light reset for LCD panel [Reset:L]
19	NC	O	Not used
20	NC	O	Not used
21	NC	O	Not used
22	NC	O	Not used
23	SDA1	I/O	I^2C bus data (For Sub memory)
24	A.DIM	O	Not used
25	SCL1	O	I^2C bus clock (For Sub memory)
26	SDA0	I/O	I^2C bus data (For general)
27	SCL0	O	I^2C bus clock (For general)
28	NC	O	Not used
29	NC	O	Not used
30	NC	O	Not used
31	NC	O	Not used
32	NC	O	Not used
33	NC	O	Not used
34	NC	O	Not used
35	NMI	I	Port for writing on board [Writning:L]
36	NC	O	Not used
37	(HD)	I	Not used
38	NC	O	Not used
39	(REMO)	I	Not used
40	NC	O	Not used
41	P85	-/I	Not used
42	P86	-	Not used
43	P87	-	Not used
44	SCK3	O	Port for writing on board
45	RXD	I	Port for writing on board

Pin No.	Pin name	I/O	Function
46	TXD	O	Port for writing on board
47	(PROTECTOR0)	I	Not used
48	NC	O	Not used
49	RXD2	I	Port for communication (Main cpu)
50	TXD2	O	Port for communication (Main cpu)
51	NC	O	Not used
52	(ACTIVE)	I	Not used
53	VD	I	Vertical sync
54	(REC_DET)	I	Not used
55	(PSS)	I	Not used
56	(ALARM)	I	Not used
57	(SYSTEM2)	I	Not used
58	(SYSTEM1)	I	Not used
59	(PROTECTOR1)	I	Not used
60	(AMP_PRO2)	I	Not used
61	(AMP_PRO1)	I	Not used
62	EE_CDS	I	Not used
63	(KEY_IN1)	I	Not used
64	(KEY_IN2)	I	Not used

SECTION 3
DISASSEMBLY

3.1 DISASSEMBLY PROCEDURE

NOTE:

Since this model adopts a layer structure, follow the procedure below in disassembling this model.
Be careful enough not to damage or scratch parts.

3.1.1 REMOVING THE STAND

(1) Remove the 2 screws [A], and remove the STAND COVER.
(2) Remove the 4 screws [B], and remove the STAND.

3.1.2 REMOVING THE REAR COVER

- Remove the STAND.
  (1) Remove the JACK COVER (L/R).
  (2) Remove the 7 screws [C], 3 screws [D], and 2 screws [E] (12 screws in total).
  (3) Remove the REAR COVER.

3.1.3 REMOVING THE REGULATOR PWB / COOLING FAN

- Remove the STAND.
- Remove the REAR COVER.
  (1) Pull out the wire of COOLING FAN.
  (2) Remove the 5 screws [F], and remove the FAN BRACKET.
  (3) Remove the 2 screws [Y], and remove the COOLING FAN.
  (4) Remove the REGULATOR PWB.

3.1.4 REMOVING THE RECEIVER PWB

- Remove the STAND.
- Remove the REAR COVER.
- Remove the FAN BRACKET.
  (1) Remove the 2 screws [G] and 3 screws [H] (5 screws in total). Then, remove the TERMINAL BASE.
  (2) Remove the 6 screws [J], and remove the RECEIVER PWB.

3.1.5 REMOVING THE FRONT CONTROL PWB CONTROL / FRONT SENSOR PWB

- Remove the STAND.
- Remove the REAR COVER.
  (1) Remove the 2 screws [K], and remove the CONTROL KNOB.
  (2) Remove the 2 screws [L], and remove the FRONT CONTROL PWB.
  (3) Remove the FRONT SENSOR PWB.

3.1.6 REMOVING THE VIDEO PWB / MI-COM & DIST MODULE PWB

- Remove the STAND.
- Remove the REAR COVER.
- Remove the FAN BRACKET.
  (1) Remove the 3 screws [M] and remove the JACK BASE.
  (2) Remove the 5 screws [N] and remove the VIDEO PWB SHIELD.
  (3) Remove the 2 screws [P], and remove the VIDEO PWB.
  (4) Remove the 5 screws [R], and remove the VIDEO PWB BRACKET.
  (5) Remove the 4 screws [S], and remove the MI-COM & DIST MODULE PWB form the VIDEO PWB BRACKET.

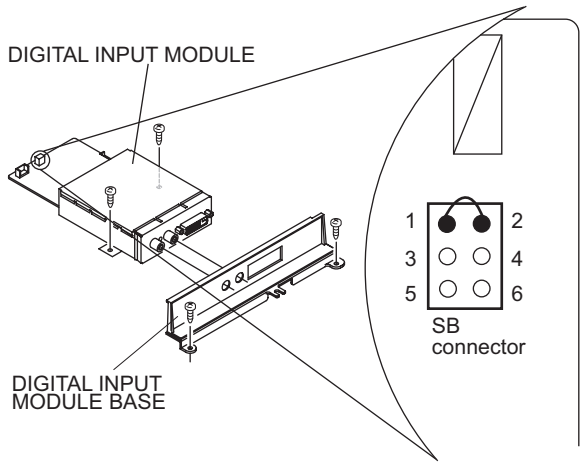
3.1.7 REMOVING THE POWER PWB

- Remove the STAND.
- Remove the REAR COVER.
- Remove the FAN BRACKET.
- Remove the RECEIVER PWB.
  (1) Remove the 4 screws [T], and remove the RECEIVER PWB BRACKET.
  (2) Remove the 1 screw [U], and remove the POWER CORD HOLDER.
  (3) Remove the 5 screws [V], and 1 screw [W] . Then, remove the POWER PWB.
  (4) Remove the 4 screws [X], and remove the CHASSIS BASE.

3.1.8 REMOVING THE DIGITAL INPUT MODULE PWB

- Remove the STAND.
- Remove the REAR COVER.
  (1) Remove the 2 screws [Q], and remove the DIGITAL INPUT MODULE BASE.
  (2) Remove the 2 screws [Z], and remove the DIGITAL INPUT MODULE PWB.

CAUTION AT DISASSEMBLY



- Prior to disassembly, unplug the power code from the AC outlet without fail. (Turn the power "off".)
- Short the SB connector [1] pin and [2] pin of the DIGITAL INPUT MODULE. (At the time of assembling)
- Before the rear panel is inserted into the cabinet, release the short-circuit between the SB connector [1] pin and [2] pin of the DIGITAL INPUT MODULE.
- After releasing the short-circuit between the SB connectors, do not turn the power on until the rear panel is inserted into the cabinet.
- Negligence in carrying out the above steps may cause the inactivation of the TV.

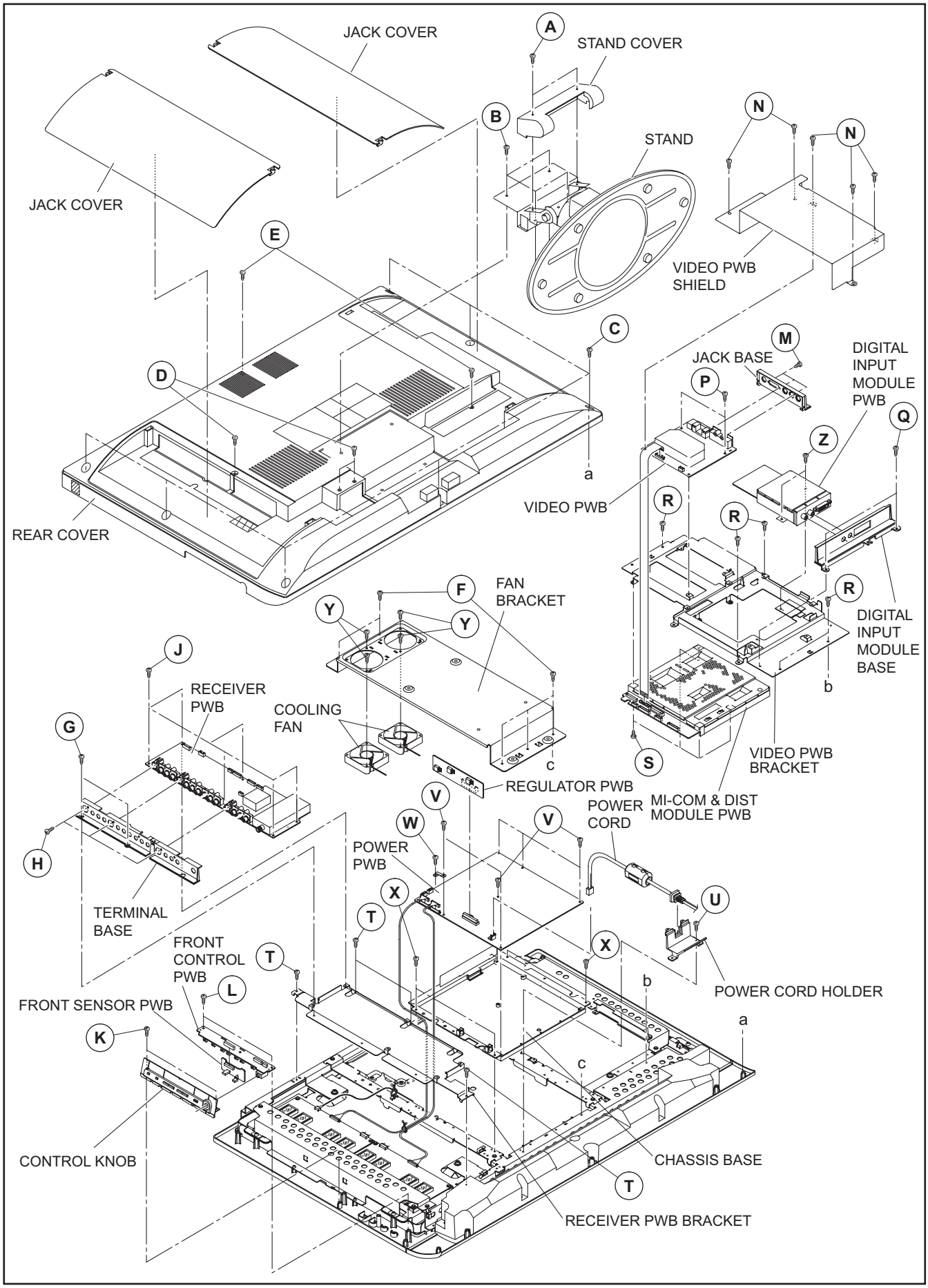

JACK COVER
A
STAND COVER
B
STAND
N
N
JACK COVER
E
VIDEO PWB SHIELD
C
M
JACK BASE
DIGITAL INPUT MODULE PWB
D
P
Q
Z
a
VIDEO PWB
R
R
REAR COVER
R
F
FAN BRACKET
Y
Y
DIGITAL INPUT MODULE BASE
J
RECEIVER PWB
COOLING FAN
b
G
c
S
VIDEO PWB BRACKET
REGULATOR PWB
V
MI-COM & DIST MODULE PWB
POWER CORD
W
V
V
POWER PWB
H
X
U
T
TERMINAL BASE
X
T
FRONT CONTROL PWB
b
POWER CORD HOLDER
L
FRONT SENSOR PWB
a
K
c
CHASSIS BASE
CONTROL KNOB
T
RECEIVER PWB BRACKET

Fig.1

3.1.9 REMOVING THE SPEAKER

- Remove the STAND.
- Remove the REAR COVER.
  (1) Remove the 5 screws [a], and remove the SPEAKER BOX.
  (2) Remove the 4 screws [b], and remove the SPEAKER (L / R).
  (3) Remove the 4 screws [c], and remove the DUCT(L/R).

NOTE:

Since the speaker is attached in a certain direction, attach the speaker in the same correct direction as it has been attached.

3.1.10 REMOVING THE LCD PANEL UNIT

- Remove the STAND.
- Remove the REAR COVER.
- Remove the POWER CORD.
- Remove the RECEIVER PWB.
- Remove the FRONT CONTROL PWB.
- Remove the FRONT SENSOR PWB.
- Remove the VIDEO PWB.
- Remove the DIGITAL INPUT MODULE PWB.
- Remove the MI-COM & DIST MODULE PWB.
- Remove the POWER PWB.
  (1) Remove the 3 screws [d], the 2 screws [e] and the 2 screws [f] (7 screws in total). Then, remove the FRAME(R).
  (2) Remove the 3 screws [g], and the 2 screws [h] (4 screws in total). Then, remove the FRAME (L).
  (3) Remove the 3 screws [j]. Then, remove the CENTER FRAME.
  (4) Remove the 2 screws [k] and the 1 screw [m] (3 screws in total). Then, remove the TOP FRAME.
  (5) Remove the 4 screws [n], and the 2 screws [p] (6 screws in total). Then, remove the BOTTM FRAME.
  (6) Remove the 8 screws [r]. Then, remove the TOP INVERTER UNIT and BOTTOM INVERTER UNIT.
  (7) Remove the 1 screw [q]. Then, remove the LCD PANEL UNIT.

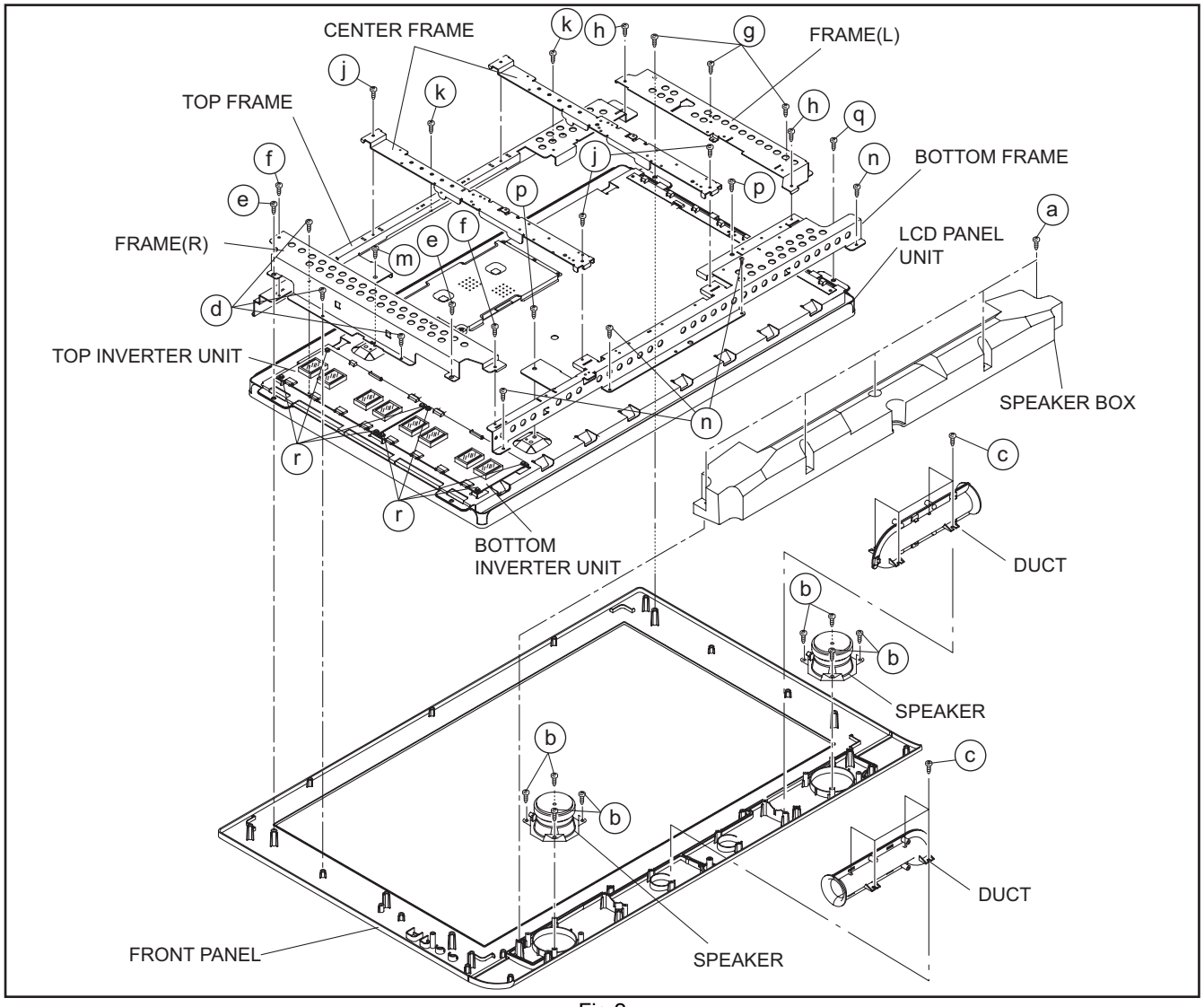


Fig.2

3.2 MEMORY IC REPLACEMENT

- This model uses the memory IC.
- This memory IC stores data for proper operation of the video and drive circuits.
- When replacing, be sure to use an IC containing this (initial value) data.

3.2.1 MEMORY IC REPLACEMENT PROCEDURE

1. Power off
Switch off the power and disconnect the power plug from the AC outlet.

2. Replace the memory IC
Be sure to use the memory IC written with the initial setting values.

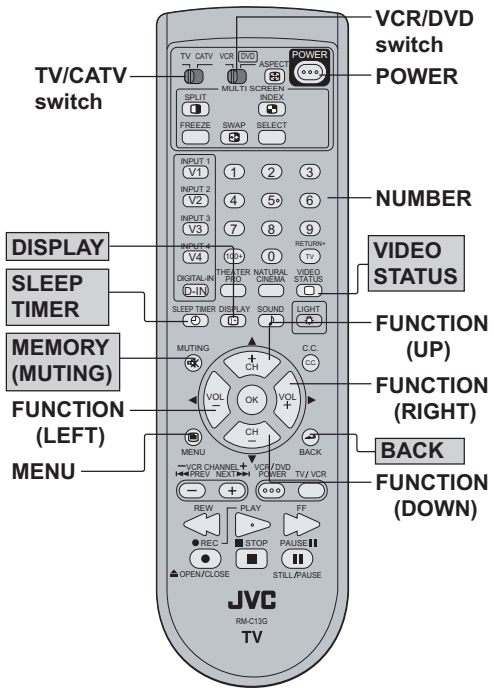
3. Power on
Connect the power plug to the AC outlet and switch on the power.

4. Receiving channel setting
Refer to the OPERATING INSTRUCTIONS and set the receive channels (Channels Preset) as described.

5. User setting
Check the user setting items according to the given in page later. Where these do not agree, refer to the OPERATING INSTRUCTIONS and set the items as described.

6. SERVICE MENU setting
Verify what to set in the SERVICE MENU, and set whatever is necessary (Fig.1). Refer to the SERVICE ADJUSTMENT for setting.

SERVICE MODE SELECT KEY



3.2.2 SERVICE MENU SETTING ITEMS

SERVICE MODE

1.PICTURE/SOUND **7.PANEL**
2.YC SEP **8.PP**
3.WHITE BALANCE **9.IP**
4.MEMORY SETUP **0.HDMI**
5.RF AFC
6.DD/CM

Fig.1

Setting items	Settings	Item No.
1. PICTURE/SOUND (sound and picture setting)		
Sound circuits (A)	Fixed	A01~A27
Video circuits (S)	Adjust	S01~S99
Deflection circuits (D)	Fixed	D01~D32
Factory setting items (F)	Adjust	F01~F59
2. YC SEP (3-dimensional YC separation setting)		
	Adjust	YCM001~YCM185
	Fixed	YCS001~YCS114
3. WHITE BALANCE [Can not adjust]		
4. MEMORY SETUP (Memory data edit) **[Do not adjust]**		
5. RF AFC: AFC setting (Automaticaly set) **[Do not adjust]**		
6. DD/CM (Panel image processing setting)		
	Adjust	DDT01~DDT34
	Fixed	CMT01~CMT57
7. PANEL (Panel power limit control) **[Do not adjust]**		
	Fixed	PDA001~PDA012
8. PP (Multi-screen processing setting)		
	Adjust	ADM001~ADM034
	Fixed	PPA001~PPA008
	Fixed	PPB001~PPB036
	Fixed	PPC001~PPC008
	Fixed	PPD001~PPD025
9. IP (DIST processing setting) **[Do not adjust]**		
	Fixed	IPA001~IPA120
	Fixed	IPB001~IPB079
	Fixed	IPC001~IPC044
	Fixed	IPD001~IPD026
	Fixed	IPE001~IPE015
0. HDMI (Digital input process setting) **[Do not adjust]**		
	Fixed	HDM001~HDM080
	Fixed	RHD001~RHD170

3.2.3 SETTINGS OF FACTORY SHIPMENT

3.2.3.1 BUTTON OPERATION

Setting item	Setting position
POWER	OFF
INPUT	TV
CHANNEL	CABLE-02
VOLUME	10

3.2.3.2 REMOTE CONTROL DIRECT OPERATION

Setting item		Setting position
INPUT		TV
CHANNEL		CABLE-02
VOLUME		10
MUTING		OFF
DISPLAY		OFF
SOUND	A.H.S	OFF
	BBE	ON
	A.H.B	ON
ASPECT	NTSC, 525i,525p	PANORAMA
	750p,1125i	FULL
OFF TIMER		OFF
VIDEO STATUS		DYNAMIC
NATURAL CINEMA		AUTO

3.2.3.3 REMOTE CONTROL MENU OPERATION

(1) PICTURE ADJUST

Customers can adjust the picture setting of menu screen as their own like but the picture standard value during factory shipment is as below.

■ NTSC MODE

Setting item	PICTURE	BRIGHT	COLOR	TINT	DETAIL	COLOR TEMPERATURE	DIG. NOISE CLEAR	COLOR MANAGEMENT
DINAMIC	00	+04	11	+02	+05	HIGH	OFF	VIVID
STANDARD	00	00	00	00	00	LOW	OFF	STD
GAME	00	+05	-05	00	0	HIGH	OFF	STD
THEATER	00	00	00	00	00	HIGH	OFF	STD

■ HD MODE

Setting item	PICTURE	BRIGHT	COLOR	TINT	DETAIL	COLOR TEMPERATURE	DIG. NOISE CLEAR	COLOR MANAGEMENT
DINAMIC	00	+03	+12	00	+03	HIGH	OFF	VIVID
STANDARD	00	00	00	00	00	LOW	OFF	STD
GAME	00	+05	-05	00	00	HIGH	OFF	STD
THEATER	00	00	00	00	00	LOW	OFF	STD

(2) SOUND ADJUST

Setting item	Setting position
TREBLE	00
BASS	00
BALANCE	00
MTS	STEREO

(3) CLOCK / TIMERS

Setting item	Setting position
SET CLOCK	---
ON / OFF TIMER	NO

(4) INITIAL SETUP

Setting item		Setting position	Setting item	Setting position
POSITION ADJUSTMENT		Center	NOISE MUTING	ON
VIDEO STATUS		DYNAMIC	FRONT PANEL LOCK	OFF
XDS ID		ON	AUTO SHUT OFF	OFF
POWER INDICATOR		HIGH	DIGITAL-IN	SIZE-1
VIDEO-1 MONITOR OUT		OFF	V-CHIP	OFF
LANGUAGE		ENG	AUTO DEMO	OFF
CLOSED CAPTION	CAPTION	CC1	IMAGE SHIFT	STD
	TEXT	T1	V1 SMART INPUT	OFF

3.3 REPLACEMENT OF CHIP COMPONENT

3.3.1 CAUTIONS

(1) Avoid heating for more than 3 seconds.
(2) Do not rub the electrodes and the resist parts of the pattern.
(3) When removing a chip part, melt the solder adequately.
(4) Do not reuse a chip part after removing it.

3.3.2 SOLDERING IRON

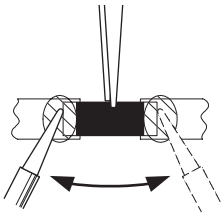
(1) Use a high insulation soldering iron with a thin pointed end of it.
(2) A 30w soldering iron is recommended for easily removing parts.

3.3.3 REPLACEMENT STEPS

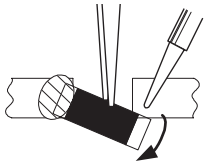
1. How to remove Chip parts

[Resistors, capacitors, etc.]

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



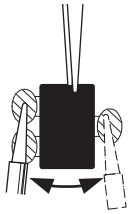
(2) Shift with the tweezers and remove the chip part.



[Transistors, diodes, variable resistors, etc.]

(1) Apply extra solder to each lead.

(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



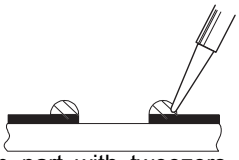
NOTE :

After removing the part, remove remaining solder from the pattern.

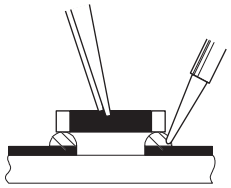
2. How to install Chip parts

[Resistors, capacitors, etc.]

(1) Apply solder to the pattern as indicated in the figure.

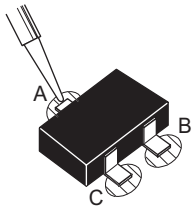


(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

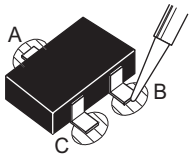


[Transistors, diodes, variable resistors, etc.]

(1) Apply solder to the pattern as indicated in the figure.
(2) Grasp the chip part with tweezers and place it on the solder.
(3) First solder lead **A** as indicated in the figure.



(4) Then solder leads **B** and **C**.



SECTION 4
ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

(1) **There are 2 ways of adjusting this TV : One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.**

(2) **The adjustment using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.**

(3) Make sure that connection is correctly made AC to AC power source.

(4) Turn on the power of the TV and measuring instruments for warning up for at least 30 minutes before starting adjustments.

(5) If the receive or input signal is not specified, use the most appropriate signal for adjustment.

(6) Never touch the parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.

(7) Preparation for adjustment. Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT.

Setting item	Settings
VIDEO STATUS	STANDARD
BRIGHT / CONTRAST / COLOR / TINT	00
COLOR TEMPERATURE	LOW
DIG. NOISE CLEAR	OFF
COLOR MANEGMENT	STANDARD
NATURAL CINEMA	OFF
TREBLE / BASS / BALANCE	00
BBE	OFF
A.H.S	OFF
A.H.B	OFF
ASPECT	FULL

4.2 MEASURING INSTRUMENT AND FIXTURES

- DC voltmeter (or digital voltmeter)
- Oscilloscope
- Signal generator (Pattern generator)
  [NTSC / 525i / 525p / 750p / 1125i / DIGITAL]
- TV audio multiplex signal generator
- Remote control unit

4.3 ADJUSTMENT ITEMS

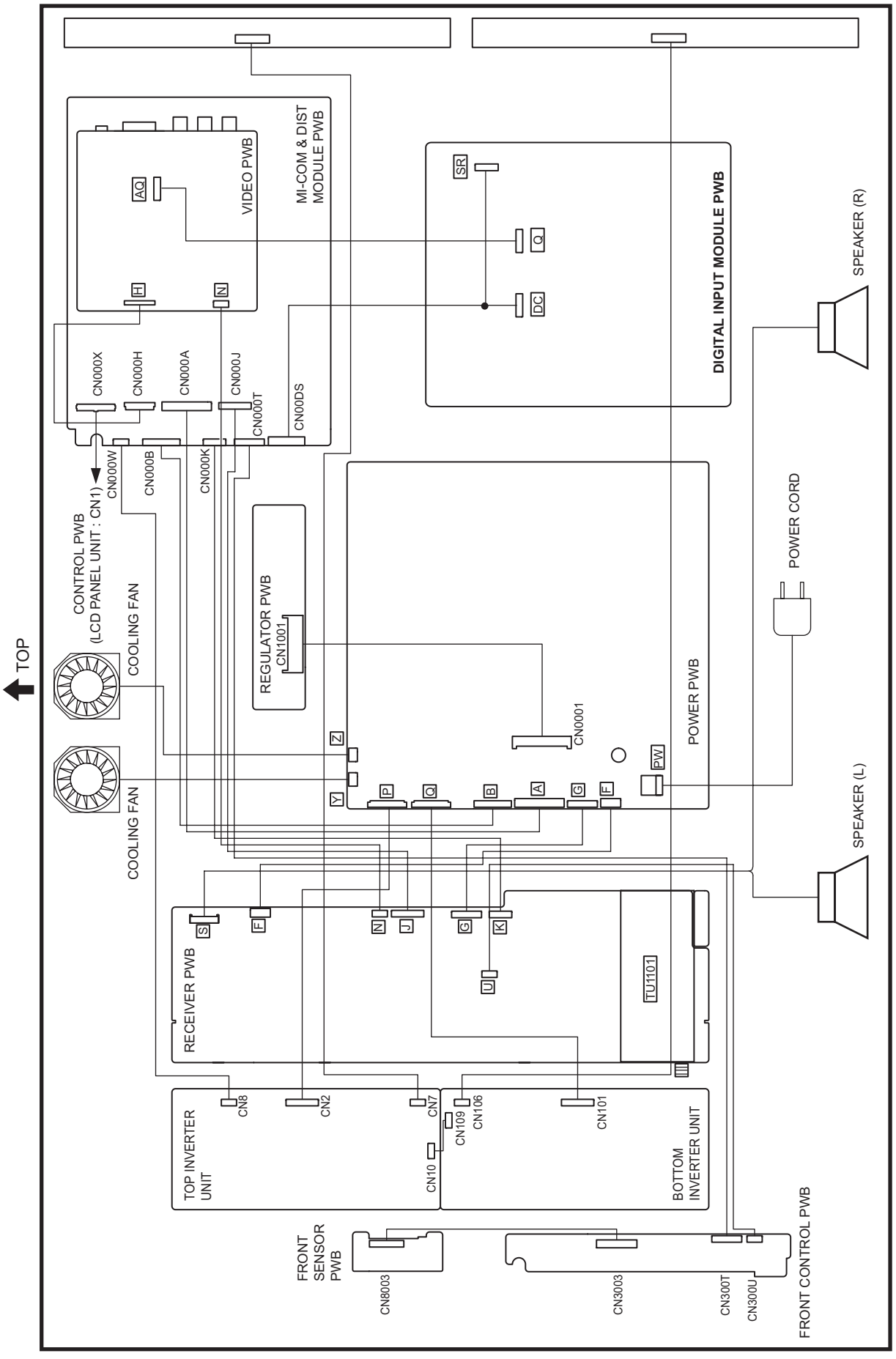
■ **VIDEO CIRCUIT**

- COMPONENT INPUT BLACK LEVEL adjustment
- COMPONENT INPUT A-D CONVERTER GAIN adjustment
- COMPONENT INPUT A-D CONVERTER OFFSET adjustment
- COMPOSITE INPUT BLACK LEVEL adjustment
- COMPOSITE INPUT A-D CONVERTER OFFSET adjustment
- SUB-SCREEN BLACK LEVEL adjustment
- SUB-SCREEN A-D CONVERTER GAIN adjustment
- WHITE BALANCE (HIGHLIGHT) adjustment

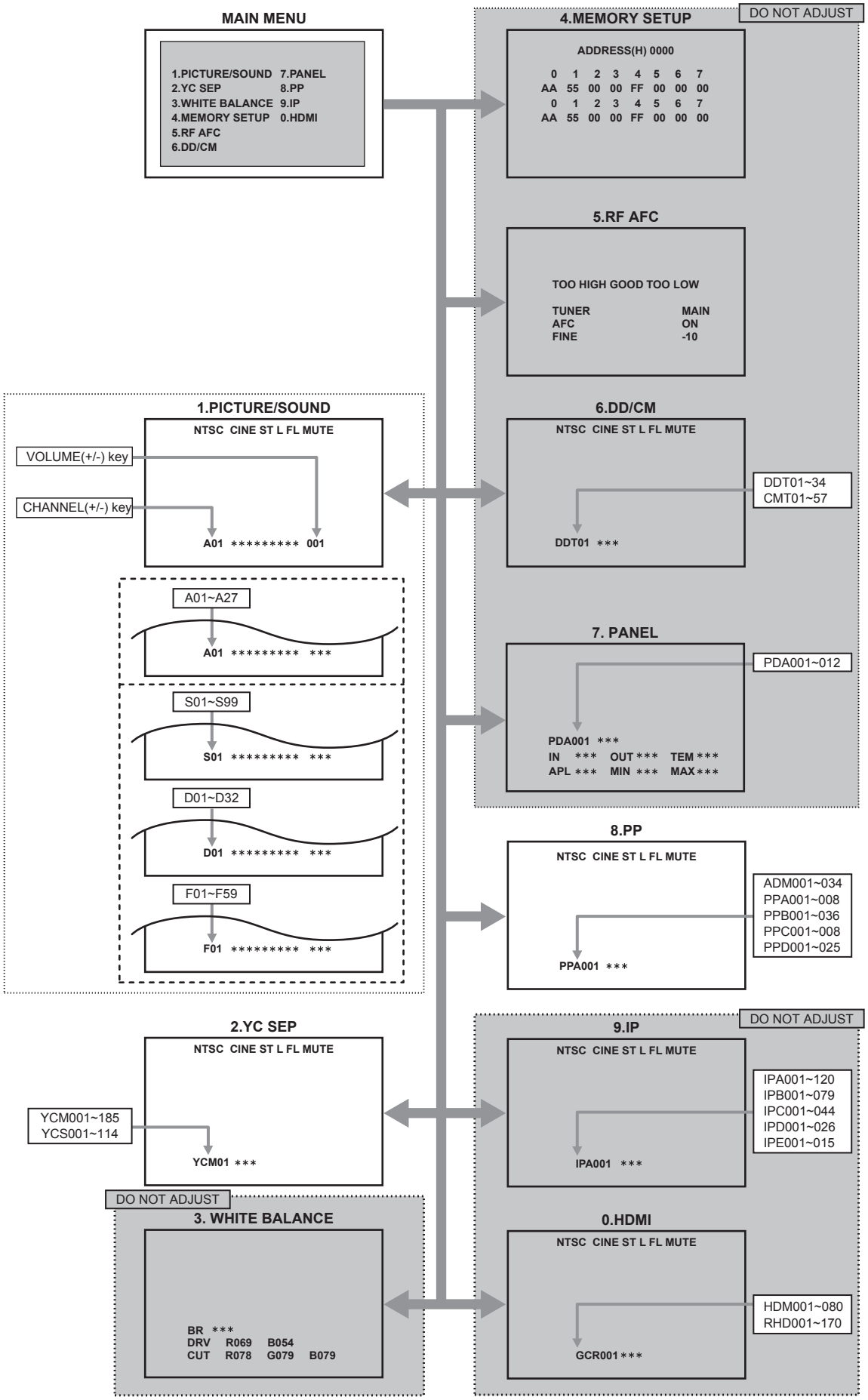
■ **MTS CIRCUIT**

- MTS INPUT LEVEL adjustment
- MTS SEPARATION adjustment

4.4 ADJUSTMENT LOCATION & WIRING



4.5 BASIC OPERATION OF SERVICE MODE



4.5.1 TOOL OF SERVICE MODE OPERATION

Operate the SERVICE MODE with the REMOTE CONTROL UNIT.

4.5.2 SERVICE MODE ITEMS

In general, basic setting (adjustments) items or verifications are performed in the SERVICE MODE.

1.PICTURE / SOUND	This sets the setting values of the VIDEO, AUDIO and DRIVE circuits.
2.YC SEP	This is used when the YC separation circuit is adjusted.
3.WHITE BALANCE	This sets the setting values of the WHITE BALANCE. **[Do not adjust]**
4.MEMORY SETUP	This sets the setting values of the MEMORY ADDRESS. **[Do not adjust]**
5.RF AFC	This is used when the IF VCO is adjusted. **[Do not adjust]**
6.DD/CM	This sets the setting values of the panel image processing. **[Do not adjust]**
7.PANEL	This sets the setting values of the panel power limit control. **[Do not adjust]**
8.PP	This sets the setting value of the output of MULTI-PICTURE circuit.
9.IP	This sets the setting value of the DIST circuit. **[Do not adjust]**
0.HDMI	This sets the setting value of the DIGITAL INPUT MODULE circuit. **[Do not adjust]**.

4.5.3 HOW TO ENTER THE SERVICE MODE

NOTE:

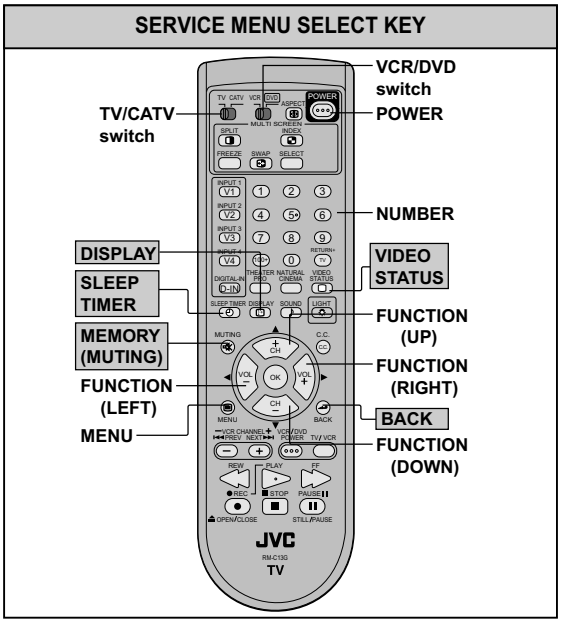
Ensure that the cursor (arrow) of the User Menu screen is pointing at picture control.

Before entering the SERVICE MODE, confirm that the setting of TV / CATV switch of the REMOTE CONTROL UNIT is at the "TV" side and the setting of VCR / DVD switch is at the "VCR" side. If the switches have not been properly set, you cannot enter the SERVICE MODE.

(1) Set to 0 minutes using the [SLEEP TIMER] key.
(2) Press the [VIDEO STATUS] key and [DISPLAY] key simultaneously, then enter the SERVICE MODE mode.
(3) When the Main Menu is displayed, press any key of the [0] to [9] key to enter the corresponding menu mode.
(4) Select the service item using the [CH +] / [CH -] key.
(5) Set the value using the [VOL +] / [VOL -] key.
(6) Press the [MUTING] key to save the value.

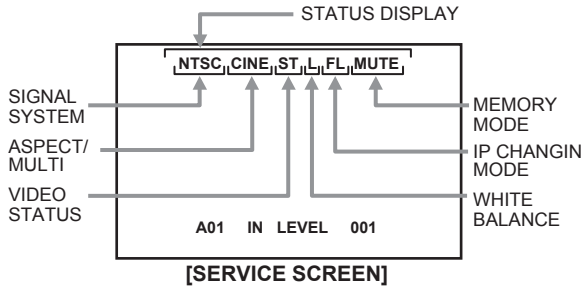
4.5.4 HOW TO EXIT THE SERVICE MODE

Press the [BACK] key to exit the Service mode.



4.5.5 DESCRIPTION OF STATUS DISPLAY

The status display on the upper part of the SERVICE MODE screen is common (to all models).



[SERVICE SCREEN]

(1) SIGNAL SYSTEM

NTSC : Composite, S-video (Y / C), RF, No signal.
DVD : 525i (component)
ED : 525p
HD : 1125i
750p : 750p
HED1 : DIGITAL 525p SIZE1
HED2 : DIGITAL 525p SIZE2
HHD : DIGITAL 1125i
H750 : DIGITAL 750p

(2) ASPECT / MULTI

SINGLE SCREEN

FULL : FULL
PANO : PANORAMA
CINE : CINEMA
REGU : REGULAR

MULTI SCREEN

M1 : SINGLE screen (for adjustment)
M2-1 : SPLIT
M12 : INDEX

(3) VIDEO STATUS

ST : STANDARD
DA : DYNAMIC
TH : THEATER
GA : GAME

(4) WHITE BALANCE

H : HIGH
L : LOW

(5) IP CHANGING MODE

FL : FRAME
L1 : LINE
23 : COMPULSORY NATURAL CINEMA IN

(6) MEMORY MODE

MUTE : Press [MUTING] key
DIR : Change data then memory at the same time.

4.5.6 SERVICE MODE SETTING

1. PICTURE/SOUND

AUDIO, VIDEO, DRIVE data adjustment.
(1) SETTING ITEM No.

A : AUDIO
S : SIGNAL
D : DRIVE
F : FACTORY SETTING

• Press [CH+] / [CH-] key

Item No. is up/down

• Press [SLEEP TIMER] key

Skip change

(2) SETTING ITEM NAME
Describe setting item name

(3) SETTING VALUE
Set the setting value.
• Press [VOL+] / [VOL-] key
Set the setting value.
• Press [MUTING] key
Memorize the data.

NOTE:
Setting for any of the following items that is not included in the “ADJUSTMENT PROCEDURE” section found in the later part of this manual will not be performed in servicing.

2. YC SEP (3D Y/C separation setting)
[Do not change settings of items that are not included in the "ADJUSTMENT PROCEDURE" section.]
Sets output data to the 3D Y/C separation circuit.
• Press [CH+] / [CH-] key
For scrolling up/down the item codes.
• Press [VOL+] / [VOL-] key
For scrolling up/down the data values.

3. WHITE BALANCE (White balance setting)
[Setting for this item is not required in servicing.]

4. MEMORY SETUP (Memory setting)
[Do not change settings]

5. RF AFC
Setting for this item is not required in servicing.

6. DD/CM
[Do not change settings]
Adjustment of color manegment and device driver

7. PANEL (Panel power limit control)
[Do not change settings]

8. PP (Multi-screen processing setting)
[Do not change settings of items that are not included in the "ADJUSTMENT PROCEDURE" section.]
Sets output data to the multi-screen processing circuit.
• Press [CH+] / [CH-] key
For scrolling up/down the item codes.
• Press [VOL+] / [VOL-] key
For scrolling up/down the data values.

9. IP (DIST setting)
[Do not change settings]
Sets output data to the DIST circuit.

0. HDMI
[Do not change settings]
Sets output data to the DIGITAL INPUT circuit

4.6 INITIAL SETTING VALUES IN THE SERVICE MODE

- Perform fine-tuning based on the "initial values" using the remote control when in the Service mode.
- The "initial values" serve only as an indication rough standard and therefore the values with which optimal display can be achieved may be different from the default values. But, don't change the values that are not written in "ADJUSTMENT PROCEDURE". They are fixed values.

NOTE:

As for the items whose settings are "Fixed" in Table 1 in "3.3 MEMORY IC REPLACEMENT", the following tables show initial values in NTSC signal input mode. As for the items whose conditions of SETTING VALUE are not written in the following tables, the following tables show initial values in NTSC signal input mode.

4.6.1 [1.PICTURE/SOUND]

Item No.	Item	Variable range	Setting value
A01	**(Not display)**	000~007	001
A02	**(Not display)**	000~007	001
A03	**(Not display)**	000~007	001
A04	**(Not display)**	000~007	000
A05	**(Not display)**	000~015	003
A06	**(Not display)**	000~015	004
A07	**(Not display)**	000~015	006
A08	**(Not display)**	000~015	003
A09	**(Not display)**	000~007	006
A10	**(Not display)**	000~007	004
A11	**(Not display)**	000~063	063
A12	**(Not display)**	000~063	063
A13	**(Not display)**	000~003	000
A14	**(Not display)**	000~007	000

Item No.	Item	Variable range	Setting value
A15	**(Not display)**	000~003	000
A16	**(Not display)**	000~003	000
A17	**(Not display)**	000~003	000
A18	IN LEVEL	000~015	006
A19	LOW SEP	000~063	041
A20	HI SEP	000~063	018
A21	**(Not display)**	000~001	000
A22	**(Not display)**	000~001	000
A23	**(Not display)**	000~001	000
A24	**(Not display)**	000~001	000
A25	**(Not display)**	000~001	000
A26	**(Not display)**	000~001	000
A27	**(Not display)**	000~001	000

Item No.	Item	Variable range	Setting value							
			NTSC		525i		525p		750p/1125i	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S01	COLOR	000~255	135	110	145	114	143	114	155	146
S02	TINAD	-127~128	000	000	000	000	000	000	000	000
S03	OF COLOR	-127~128	000	000	000	000	000	000	000	000
S04	OF TINAD	-127~128	000	000	000	000	000	000	000	000
S05	BRIG	000~255	041	027	041	033	041	033	036	043
S06	CONT	000~255	128	146	128	149	128	149	128	128
S07	OF BRIG	-127~128	000	000	000	000	000	000	000	000
S08	OF CONT	-127~128	000	000	000	000	000	000	000	000
S09	BYGN	000~255	130	148	133	120	133	120	147	118
S10	OF BYGN	-127~128	000	000	000	000	000	000	000	000
S11	RYAXIS	-127~128	+006	000	+006	000	+006	000	000	000
S12	MIX	000~003	000	000	000	000	000	000	001	001

Item No.	Item	Variable range	Setting value							
			NTSC				525i			
			STANDARD		THEATER		STANDARD		THEATER	
			HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
S13	RDRV	000~255	246	246	246	246	246	246	246	246
S14	RDRV	-127~128	-001	000	000	000	-001	000	000	-001
S15	GDRV	000~255	247	247	247	247	247	247	247	247
S16	GDRV	-127~128	-011	000	-008	-019	-011	000	-011	-020
S17	BDRV	000~255	255	255	225	225	255	255	255	255
S18	BDRV	-127~128	+019	000	-014	-030	+019	000	-016	-033

Item No.	Item	Variable range	Setting value							
			525p				750p/1125i			
			STANDARD		THEATER		STANDARD		THEATER	
			HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
S13	RDRV	000~255	246	246	246	246	246	246	246	246
S14	RDRV	-127~128	-001	000	+001	-001	+001	000	000	000
S15	GDRV	000~255	247	247	247	247	255	255	255	255
S16	GDRV	-127~128	-011	000	-007	-020	-004	000	-006	-027
S17	BDRV	000~255	255	255	255	255	225	225	225	225
S18	BDRV	-127~128	+019	000	-016	-033	+032	000	+013	-038

Item No.	Item	Variable range	Setting value							
			NTSC		525i		525p		750p/1125i	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S19	CUTR	000~255	128	128	128	128	128	128	128	128
S20	OF CUTR	-127~128	000	000	000	000	000	000	000	000
S21	CUTG	000~255	128	128	128	128	128	128	128	128
S22	OF CUTG	-127~128	000	000	000	000	000	000	000	000
S23	CUTB	000~255	128	128	128	128	128	128	128	128
S24	OF CUTB	-127~128	000	000	000	000	000	000	000	000
S25	CUTR	000~001	000	000	000	000	000	000	000	000
S26	CUTG	000~001	000	000	000	000	000	000	000	000
S27	CUTB	000~001	000	000	000	000	000	000	000	000
S28	BTHN	000~001	001	000	001	000	001	000	001	000
S29	BCALM	000~001	000	000	000	000	000	000	000	000
S30	BKAKOU	000~031	000	000	000	000	000	000	000	000
S31	BLIM	000~063	002	000	003	000	003	000	002	000
S32	BSTPO	000~063	018	063	020	063	020	063	018	063
S33	BKAKON	000~001	001	001	001	001	001	001	001	001
S34	WTHN	000~001	001	001	001	001	001	001	001	001
S35	WCALM	000~001	000	000	000	000	000	000	000	001
S36	WKAKOU	000~031	000	000	000	000	000	000	000	000
S37	WLIM	000~255	220	220	220	220	220	220	220	225
S38	WSTPO	000~063	050	050	050	050	050	050	050	050
S39	WPEAK	000~063	060	060	060	060	060	060	060	060
S40	WKAKON	000~001	001	001	001	001	001	001	001	001
S41	WGAINC	000~001	001	001	001	001	001	001	001	001

Item No.	Item	Variable range	Setting value							
			NTSC		525i		525p		750p/1125i	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S42	GAINB	000~003	001	000	001	000	001	000	002	000
S43	SLIC	000~031	009	009	009	009	009	009	009	009
S44	APG	000~003	001	001	001	001	001	001	001	001
S45	GAINA	000~003	002	002	002	002	002	002	002	002
S46	**(Not display)**	000~015	015	015	015	015	015	015	015	015
S47	**(Not display)**	000~015	015	015	015	015	015	015	015	015
S48	DCTRAN	000~015	015	015	015	015	015	015	015	015

Item No.	Item	Variable range	Setting value	
			MULTI-SCREEN	ASPECT
			SPLIT	REGULAR
S49	HSTR	000~001	001	000
S50	HSTR	000~255	010	018
S51	HEND	000~001	000	000
S52	HEND	000~255	087	079
S53	VSTR	000~001	000	000
S54	VSTR	000~255	026	006
S55	VEND	000~001	000	000
S56	VEND	000~255	077	096
S57	BHSTR	000~255	000	000
S58	BHSTR	000~015	000	000
S59	BHEND	000~255	000	000
S60	BHEND	000~015	000	000

Data of the setting value is selected in the order of "SPLIT" and "REGULAR".

Item No.	Item	Variable range	Setting value					
			NTSC		525i/525p		750p/1125i	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S61	PLPOL2	000~001	001	001	001	001	001	001
S62	PLEV2	000~127	016	015	016	015	016	016
S63	PLPOL1	000~001	000	000	000	000	000	000
S64	PLEV1	000~127	000	000	000	000	000	000

Item No.	Item	Variable range	Setting value							
			NTSC				525i/525p		750p/1125i	
			MULTI-SCREEN		ASPECT					
			SPLIT		REGULAR					
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S65	MODC	000~003	002	002	002	002	002	002	002	002
S66	RMC	000~003	003	003	001	003	001	003	003	003
S67	RGA	000~003	003	003	003	003	002	003	003	003
S68	CLIP	000~015	000	000	000	000	000	000	000	000
S69	COR	000~063	019	019	019	019	019	019	019	019

Item No.	Item	Variable range	Setting value
S70	TINTON	001~001	001
S71	DRIVER	000~255	255
S72	DRIVEG	000~255	255
S73	DRIVEB	000~255	255
S74	EECONT	000~031	000
S75	EEBRT	000~031	009
S76	EETBRT	-127~128	000
S77	EETCONT	-127~128	000
S78	PICMAX	000~255	255
S79	PICMIN	000~255	000
S80	BRTMAX	000~255	255
S81	BRTMIN	000~255	000
S82	COLMAX	000~255	255
S83	COLMIN	000~255	000
S84	PWMDIM	000~255	143
S85	ADIM	000~255	255
S86	**(Not display)**	000~255	255
S87	**(Not display)**	000~007	003
S88	APLGAIN	000~007	000
S89	APLLIM	000~255	000
S90	ABSGAIN	000~127	000
S91	BLKGAIN	000~007	007
S92	BLKLIM	000~031	031
S93	WHTGAIN	000~007	007
S94	WHTLIM	000~031	031
S95	DCSTART	000~255	035
S96	DCGAIN	000~015	006
S97	DCLIM	000~063	050
S98	(Not display)	000~001	000
S99	(Not display)	000~003	000

Item No.	Item	Variable range	Setting value
D01	**(Not display)**	000~001	000
D02	**(Not display)**	000~001	000
D03	**(Not display)**	000~001	000
D04	**(Not display)**	000~001	000
D05	**(Not display)**	000~001	000
D06	**(Not display)**	000~001	000
D07	**(Not display)**	000~001	000
D08	**(Not display)**	000~001	000
D09	**(Not display)**	000~001	000
D10	**(Not display)**	000~001	000
D11	**(Not display)**	000~001	000
D12	**(Not display)**	000~001	000
D13	**(Not display)**	000~001	000

Item No.	Item	Variable range	Setting value
D14	**(Not display)**	000~001	000
D15	**(Not display)**	000~001	000
D16	**(Not display)**	000~001	000
D17	**(Not display)**	000~001	000
D18	**(Not display)**	000~001	000
D19	**(Not display)**	000~001	000
D20	**(Not display)**	000~001	000
D21	**(Not display)**	000~001	000
D22	**(Not display)**	000~001	000
D23	**(Not display)**	000~001	000
D24	**(Not display)**	000~001	000
D25	**(Not display)**	000~001	000
D26	**(Not display)**	000~001	000
D27	**(Not display)**	000~001	053
D28	**(Not display)**	000~001	000
D29	**(Not display)**	000~001	000
D30	**(Not display)**	000~001	000
D31	**(Not display)**	000~001	000
D32	**(Not display)**	000~001	000

Item No.	Item	Variable range	Setting value
F01	**(Not display)**	000~255	001
F02	**(Not display)**	000~255	000
F03	**(Not display)**	000~255	000
F04	**(Not display)**	000~255	032
F05	**(Not display)**	000~001	000
F06	**(Not display)**	000~001	136
F07	**(Not display)**	000~255	011
F08	**(Not display)**	000~255	007
F09	**(Not display)**	000~015	002
F10	**(Not display)**	000~015	004
F11	**(Not display)**	000~015	004
F12	**(Not display)**	000~015	005
F13	**(Not display)**	000~015	006
F14	**(Not display)**	000~015	007
F15	**(Not display)**	000~015	007
F16	**(Not display)**	000~127	070
F17	**(Not display)**	000~001	000
F18	**(Not display)**	000~001	000
F19	**(Not display)**	000~001	000
F20	**(Not display)**	000~255	005
F21	**(Not display)**	000~255	002
F22	**(Not display)**	000~001	000
F23	**(Not display)**	000~255	000
F24	**(Not display)**	000~255	098

Item No.	Item	Variable range	Setting value
F25	**(Not display)**	000~255	006
F26	**(Not display)**	000~255	040
F27	**(Not display)**	000~255	040
F28	**(Not display)**	000~001	000
F29	**(Not display)**	000~001	000
F30	**(Not display)**	000~001	000
F31	**(Not display)**	000~001	000
F32	**(Not display)**	000~001	000
F33	**(Not display)**	000~001	000
F34	**(Not display)**	000~001	000
F35	**(Not display)**	000~001	000
F36	**(Not display)**	000~001	000
F37	**(Not display)**	000~001	000
F38	**(Not display)**	000~001	000
F39	**(Not display)**	000~001	000
F40	**(Not display)**	000~001	000

Item No.	Item	Variable range	Setting value				
			NTSC	525i	525p	750p	1125i
F41	**(Not display)**	000~003	000	002	002	002	002
F42	**(Not display)**	000~001	000	000	000	000	000
F43	**(Not display)**	000~063	039	040	037	024	024

Item No.	Item	Variable range	Setting value
F44	**(Not display)**	000~001	000
F45	**(Not display)**	000~007	000
F46	OUT LV.	000~255	090
F47	LIMIT B	000~255	000
F48	LIMIT A	000~255	000
F49	**(Not display)**	000~255	123
F50	**(Not display)**	000~255	155
F51	**(Not display)**	000~255	123
F52	**(Not display)**	000~255	255
F53	**(Not display)**	000~001	001
F54	**(Not display)**	000~001	001
F55	**(Not display)**	000~001	030
F56	**(Not display)**	000~001	207
F57	**(Not display)**	000~001	128
F58	**(Not display)**	000~001	047
F59	**(Not display)**	000~001	001
F60	**(Not display)**	000~001	016
F61	**(Not display)**	000~001	000
F62	**(Not display)**	000~001	011
F63	ATT GAIN	000~001	001
F64	**(Not display)**	000~001	073
F65	**(Not display)**	000~001	001

Item No.	Item	Variable range	Setting value
F66	**(Not display)**	000~001	003
F67	**(Not display)**	000~001	201
F68	**(Not display)**	000~001	000
F69	**(Not display)**	000~001	000
F70	**(Not display)**	000~001	000

4.6.2 [2.YC SEP]

NOTE :

Initial setting value is reference value at following condition.

INPUT SIGNAL : NTSC
ASPECT : FULL
MULTI-SCREEN : SINGLE
VIDEO STATUS : STANDARD
COLOR TEMPERATURE : LOW

Item No.	Item	Variable range	Setting value
YCM001	**(Not display)**	000~001	000
YCM002	**(Not display)**	000~001	000
YCM003	**(Not display)**	000~001	000
YCM004	**(Not display)**	000~003	001
YCM005	**(Not display)**	000~255	239
YCM006	**(Not display)**	000~003	001
YCM007	**(Not display)**	000~255	239
YCM008	**(Not display)**	000~001	000
YCM009	**(Not display)**	000~003	000
YCM010	**(Not display)**	000~001	000
YCM011	**(Not display)**	000~001	000
YCM012	**(Not display)**	000~001	000
YCM013	**(Not display)**	000~001	000
YCM014	**(Not display)**	000~003	000
YCM015	**(Not display)**	000~001	000
YCM016	**(Not display)**	000~003	001
YCM017	**(Not display)**	000~001	001
YCM018	**(Not display)**	000~003	000
YCM019	**(Not display)**	000~001	000
YCM020	**(Not display)**	000~001	000
YCM021	**(Not display)**	000~003	002
YCM022	**(Not display)**	000~007	004
YCM023	**(Not display)**	000~001	001
YCM024	**(Not display)**	000~001	000
YCM025	**(Not display)**	000~015	005
YCM026	**(Not display)**	000~015	003
YCM027	**(Not display)**	000~003	000
YCM028	**(Not display)**	000~007	004
YCM029	**(Not display)**	000~007	006
YCM030	**(Not display)**	000~003	000
YCM031	**(Not display)**	000~001	000
YCM032	**(Not display)**	000~003	003
YCM033	**(Not display)**	000~001	001
YCM034	**(Not display)**	000~001	000
YCM035	**(Not display)**	000~255	096
YCM036	**(Not display)**	000~001	001
YCM037	**(Not display)**	000~003	001
YCM038	**(Not display)**	000~127	062
YCM039	**(Not display)**	000~127	073
YCM040	**(Not display)**	000~003	002
YCM041	**(Not display)**	000~063	016
YCM042	**(Not display)**	000~001	000
YCM043	**(Not display)**	000~001	000
YCM044	**(Not display)**	000~255	200
YCM045	**(Not display)**	000~001	000
YCM046	**(Not display)**	000~255	147
YCM047	**(Not display)**	000~001	001
YCM048	**(Not display)**	000~001	001
YCM049	**(Not display)**	000~001	001
YCM050	**(Not display)**	000~001	001
YCM051	**(Not display)**	000~001	001
YCM052	**(Not display)**	000~001	000
YCM053	**(Not display)**	000~001	000
YCM054	**(Not display)**	000~003	003
YCM055	**(Not display)**	000~003	003
YCM056	**(Not display)**	000~003	000
YCM057	**(Not display)**	000~001	000
YCM058	**(Not display)**	000~001	001
YCM059	**(Not display)**	000~001	001
YCM060	**(Not display)**	000~001	000
YCM061	**(Not display)**	000~001	001
YCM062	**(Not display)**	000~015	001
YCM063	**(Not display)**	000~015	005
YCM064	**(Not display)**	000~003	000
YCM065	**(Not display)**	000~063	060
YCM066	**(Not display)**	000~063	040
YCM067	**(Not display)**	000~063	025
YCM068	**(Not display)**	000~063	012
YCM069	**(Not display)**	000~063	036
YCM070	**(Not display)**	000~063	031
YCM071	**(Not display)**	000~127	031
YCM072	**(Not display)**	000~001	001
YCM073	**(Not display)**	000~001	001
YCM074	**(Not display)**	000~063	024
YCM075	**(Not display)**	000~001	000
YCM076	**(Not display)**	000~001	001
YCM077	**(Not display)**	000~063	010
YCM078	**(Not display)**	000~063	001
YCM079	**(Not display)**	000~255	000
YCM080	**(Not display)**	000~255	000
YCM081	**(Not display)**	000~255	000
YCM082	**(Not display)**	000~255	000

Item No.	Item	Variable range	Setting value
YCM083	**(Not display)**	000~001	001
YCM084	**(Not display)**	000~063	012
YCM085	**(Not display)**	000~001	000
YCM086	**(Not display)**	000~001	000
YCM087	**(Not display)**	000~063	028
YCM088	**(Not display)**	000~001	001
YCM089	**(Not display)**	000~031	000
YCM090	**(Not display)**	000~003	000
YCM091	**(Not display)**	000~015	000
YCM092	**(Not display)**	000~015	000
YCM093	**(Not display)**	000~015	003
YCM094	**(Not display)**	000~063	000
YCM095	**(Not display)**	000~255	050
YCM096	**(Not display)**	000~001	000
YCM097	**(Not display)**	000~063	032
YCM098	**(Not display)**	000~015	008
YCM099	**(Not display)**	000~015	005
YCM100	**(Not display)**	000~015	008
YCM101	**(Not display)**	000~015	005
YCM102	**(Not display)**	000~015	000
YCM103	**(Not display)**	000~015	002
YCM104	**(Not display)**	000~015	008
YCM105	**(Not display)**	000~015	006
YCM106	**(Not display)**	000~255	010
YCM107	**(Not display)**	000~255	032
YCM108	**(Not display)**	000~255	031
YCM109	**(Not display)**	000~255	064
YCM110	**(Not display)**	000~001	000
YCM111	**(Not display)**	000~001	001
YCM112	**(Not display)**	000~001	001
YCM113	**(Not display)**	000~001	001
YCM114	**(Not display)**	000~001	000
YCM115	**(Not display)**	000~001	001
YCM116	**(Not display)**	000~001	000
YCM117	**(Not display)**	000~001	000
YCM118	**(Not display)**	000~001	001
YCM119	**(Not display)**	000~001	000
YCM120	**(Not display)**	000~001	000
YCM121	**(Not display)**	000~003	003
YCM122	**(Not display)**	000~001	000
YCM123	**(Not display)**	000~255	000
YCM124	**(Not display)**	000~001	000
YCM125	**(Not display)**	000~255	002
YCM126	**(Not display)**	000~001	000
YCM127	**(Not display)**	000~001	001

Item No.	Item	Variable range	Setting value
YCM128	**(Not display)**	000~001	001
YCM129	**(Not display)**	000~001	001
YCM130	**(Not display)**	000~003	001
YCM131	**(Not display)**	000~255	040
YCM132	**(Not display)**	000~255	155
YCM133	**(Not display)**	000~255	055
YCM134	**(Not display)**	000~007	001
YCM135	**(Not display)**	000~255	136
YCM136	**(Not display)**	000~001	000
YCM137	**(Not display)**	000~001	001
YCM138	**(Not display)**	000~007	003
YCM139	**(Not display)**	000~255	141
YCM140	**(Not display)**	000~007	000
YCM141	**(Not display)**	000~255	014
YCM142	**(Not display)**	000~001	000
YCM143	**(Not display)**	000~007	005
YCM144	**(Not display)**	000~255	128
YCM145	**(Not display)**	000~001	000
YCM146	**(Not display)**	000~001	001
YCM147	**(Not display)**	000~001	001
YCM148	**(Not display)**	000~001	001
YCM149	**(Not display)**	000~001	000
YCM150	**(Not display)**	000~001	000
YCM151	**(Not display)**	000~255	136
YCM152	**(Not display)**	000~001	001
YCM153	**(Not display)**	000~001	001
YCM154	**(Not display)**	000~001	001
YCM155	**(Not display)**	000~003	000
YCM156	**(Not display)**	000~015	015
YCM157	**(Not display)**	000~015	004
YCM158	**(Not display)**	000~001	001
YCM159	**(Not display)**	000~127	007
YCM160	**(Not display)**	000~001	001
YCM161	**(Not display)**	000~031	000
YCM162	**(Not display)**	000~001	000
YCM163	**(Not display)**	000~015	003
YCM164	**(Not display)**	000~007	002
YCM165	**(Not display)**	000~031	016
YCM166	**(Not display)**	000~255	235
YCM167	**(Not display)**	000~003	000
YCM168	**(Not display)**	000~063	000
YCM169	**(Not display)**	000~015	003
YCM170	**(Not display)**	000~015	003
YCM171	**(Not display)**	000~007	000
YCM172	**(Not display)**	000~255	096

Item No.	Item	Variable range	Setting value
YCM173	**(Not display)**	000~007	003
YCM174	**(Not display)**	000~255	056
YCM175	**(Not display)**	000~001	000
YCM176	**(Not display)**	000~001	000
YCM177	**(Not display)**	000~255	022
YCM178	**(Not display)**	000~001	001
YCM179	**(Not display)**	000~001	000
YCM180	**(Not display)**	000~007	003
YCM181	**(Not display)**	000~003	001
YCM182	**(Not display)**	000~003	001
YCM183	**(Not display)**	000~003	001
YCM184	**(Not display)**	000~003	001
YCM185	**(Not display)**	000~255	000

Item No.	Item	Variable range	Setting value
YCS001	**(Not display)**	000~001	000
YCS002	**(Not display)**	000~001	000
YCS003	**(Not display)**	000~001	000
YCS004	**(Not display)**	000~003	001
YCS005	**(Not display)**	000~255	239
YCS006	**(Not display)**	000~003	001
YCS007	**(Not display)**	000~255	239
YCS008	**(Not display)**	000~001	000
YCS009	**(Not display)**	000~003	000
YCS010	**(Not display)**	000~001	000
YCS011	**(Not display)**	000~001	000
YCS012	**(Not display)**	000~001	000
YCS013	**(Not display)**	000~001	000
YCS014	**(Not display)**	000~003	000
YCS015	**(Not display)**	000~001	000
YCS016	**(Not display)**	000~003	001
YCS017	**(Not display)**	000~001	001
YCS018	**(Not display)**	000~003	000
YCS019	**(Not display)**	000~001	000
YCS020	**(Not display)**	000~001	000
YCS021	**(Not display)**	000~003	002
YCS022	**(Not display)**	000~007	004
YCS023	**(Not display)**	000~001	001
YCS024	**(Not display)**	000~001	000
YCS025	**(Not display)**	000~015	005
YCS026	**(Not display)**	000~015	003
YCS027	**(Not display)**	000~003	000
YCS028	**(Not display)**	000~007	003
YCS029	**(Not display)**	000~007	002
YCS030	**(Not display)**	000~003	003

Item No.	Item	Variable range	Setting value
YCS031	**(Not display)**	000~001	000
YCS032	**(Not display)**	000~003	003
YCS033	**(Not display)**	000~001	001
YCS034	**(Not display)**	000~001	000
YCS035	**(Not display)**	000~255	096
YCS036	**(Not display)**	000~001	001
YCS037	**(Not display)**	000~003	001
YCS038	**(Not display)**	000~127	062
YCS039	**(Not display)**	000~127	073
YCS040	**(Not display)**	000~003	002
YCS041	**(Not display)**	000~063	016
YCS042	**(Not display)**	000~001	000
YCS043	**(Not display)**	000~001	000
YCS044	**(Not display)**	000~255	160
YCS045	**(Not display)**	000~001	000
YCS046	**(Not display)**	000~255	111
YCS047	**(Not display)**	000~001	001
YCS048	**(Not display)**	000~031	000
YCS049	**(Not display)**	000~003	000
YCS050	**(Not display)**	000~015	000
YCS051	**(Not display)**	000~015	008
YCS052	**(Not display)**	000~015	001
YCS053	**(Not display)**	000~063	015
YCS054	**(Not display)**	000~255	020
YCS055	**(Not display)**	000~001	000
YCS056	**(Not display)**	000~063	025
YCS057	**(Not display)**	000~015	008
YCS058	**(Not display)**	000~015	005
YCS059	**(Not display)**	000~015	008
YCS060	**(Not display)**	000~015	005
YCS061	**(Not display)**	000~015	000
YCS062	**(Not display)**	000~015	002
YCS063	**(Not display)**	000~015	008
YCS064	**(Not display)**	000~015	006
YCS065	**(Not display)**	000~255	010
YCS066	**(Not display)**	000~255	032
YCS067	**(Not display)**	000~255	031
YCS068	**(Not display)**	000~255	089
YCS069	**(Not display)**	000~001	000
YCS070	**(Not display)**	000~001	001
YCS071	**(Not display)**	000~001	001
YCS072	**(Not display)**	000~001	001
YCS073	**(Not display)**	000~001	000
YCS074	**(Not display)**	000~001	001
YCS075	**(Not display)**	000~001	000

Item No.	Item	Variable range	Setting value
YCS076	**(Not display)**	000~001	000
YCS077	**(Not display)**	000~001	000
YCS078	**(Not display)**	000~001	000
YCS079	**(Not display)**	000~001	000
YCS080	**(Not display)**	000~003	003
YCS081	**(Not display)**	000~001	000
YCS082	**(Not display)**	000~255	000
YCS083	**(Not display)**	000~255	000
YCS084	**(Not display)**	000~007	000
YCS085	**(Not display)**	000~255	014
YCS086	**(Not display)**	000~001	000
YCS087	**(Not display)**	000~001	001
YCS088	**(Not display)**	000~001	000
YCS089	**(Not display)**	000~001	000
YCS090	**(Not display)**	000~255	136
YCS091	**(Not display)**	000~001	001
YCS092	**(Not display)**	000~001	001
YCS093	**(Not display)**	000~001	001
YCS094	**(Not display)**	000~003	000
YCS095	**(Not display)**	000~015	015
YCS096	**(Not display)**	000~015	002
YCS097	**(Not display)**	000~001	001
YCS098	**(Not display)**	000~127	007
YCS099	**(Not display)**	000~031	000
YCS100	**(Not display)**	000~001	000
YCS101	**(Not display)**	000~015	003
YCS102	**(Not display)**	000~007	002
YCS103	**(Not display)**	000~031	016
YCS104	**(Not display)**	000~255	235
YCS105	**(Not display)**	000~003	000
YCS106	**(Not display)**	000~063	000
YCS107	**(Not display)**	000~015	003
YCS108	**(Not display)**	000~015	003
YCS109	**(Not display)**	000~001	000
YCS110	**(Not display)**	000~003	001
YCS111	**(Not display)**	000~003	001
YCS112	**(Not display)**	000~003	001
YCS113	**(Not display)**	000~003	001
YCS114	**(Not display)**	000~255	000

4.6.3 [3.WHITE BALANCE]

NOTE :

Initial setting value is reference value at following condition.

INPUT SIGNAL : NTSC
ASPECT : FULL
MULTI-SCREEN : SINGLE
VIDEO STATUS : STANDARD
COLOR TEMPERATURE : LOW

Item No.	Item	Variable range	Setting value
BR	**(Not display)**	000~238	000
DRV R	**(Not display)**	000~255	000
DRV B	**(Not display)**	000~255	000
CUT R	**(Not display)**	000~255	000
CUT G	**(Not display)**	000~255	000
CUT B	**(Not display)**	000~255	000

4.6.4 [6.DD/CM]

Item No.	Item	Variable range	Setting value
DDT01	**(Not display)**	000~015	000
DDT02	**(Not display)**	000~255	000
DDT03	**(Not display)**	000~255	119
DDT04	**(Not display)**	000~255	246
DDT05	**(Not display)**	000~255	247
DDT06	**(Not display)**	000~255	255
DDT07	**(Not display)**	000~003	000
DDT08	**(Not display)**	000~255	032
DDT09	**(Not display)**	000~003	000
DDT10	**(Not display)**	000~255	000
DDT11	**(Not display)**	000~007	000
DDT12	**(Not display)**	000~255	115
DDT13	**(Not display)**	000~255	000
DDT14	**(Not display)**	000~003	002
DDT15	**(Not display)**	000~007	000
DDT16	**(Not display)**	000~255	186
DDT17	**(Not display)**	000~001	000
DDT18	**(Not display)**	000~001	000
DDT19	**(Not display)**	000~063	002
DDT20	**(Not display)**	000~015	014
DDT21	**(Not display)**	000~015	008
DDT22	**(Not display)**	000~015	000
DDT23	**(Not display)**	000~015	000
DDT24	**(Not display)**	000~001	000
DDT25	**(Not display)**	000~001	000
DDT26	**(Not display)**	000~001	000
DDT27	**(Not display)**	000~007	000
DDT28	**(Not display)**	000~255	122
DDT29	**(Not display)**	000~003	002

Item No.	Item	Variable range	Setting value
DDT30	**(Not display)**	000~001	000
DDT31	**(Not display)**	000~007	000
DDT32	**(Not display)**	000~255	000
DDT33	**(Not display)**	000~255	000
DDT34	**(Not display)**	000~255	033

Item No.	Item	Variable range	Setting value
CMT01	**(Not display)**	000~003	000
CMT02	**(Not display)**	000~0FF	112
CMT03	**(Not display)**	000~255	015
CMT04	**(Not display)**	000~255	020
CMT05	**(Not display)**	-032~+031	-005
CMT06	**(Not display)**	-128~+127	+015
CMT07	**(Not display)**	-128~+127	+010
CMT08	**(Not display)**	-128~+127	+003
CMT09	**(Not display)**	-128~+127	000
CMT10	**(Not display)**	000~003	000
CMT11	**(Not display)**	000~0FF	166
CMT12	**(Not display)**	000~255	020
CMT13	**(Not display)**	000~255	020
CMT14	**(Not display)**	-032~+031	-005
CMT15	**(Not display)**	-128~+127	+005
CMT16	**(Not display)**	-128~+127	+003
CMT17	**(Not display)**	-128~+127	000
CMT18	**(Not display)**	-128~+127	000
CMT19	**(Not display)**	000~003	000
CMT20	**(Not display)**	000~0FF	186
CMT21	**(Not display)**	000~255	030
CMT22	**(Not display)**	000~255	040
CMT23	**(Not display)**	-032~+031	-007
CMT24	**(Not display)**	-128~+127	+003
CMT25	**(Not display)**	-128~+127	+011
CMT26	**(Not display)**	-128~+127	+004
CMT27	**(Not display)**	-128~+127	+007
CMT28	**(Not display)**	000~003	001
CMT29	**(Not display)**	000~0FF	062
CMT30	**(Not display)**	000~255	040
CMT31	**(Not display)**	000~255	050
CMT32	**(Not display)**	-032~+031	000
CMT33	**(Not display)**	-128~+127	-001
CMT34	**(Not display)**	-128~+127	+015
CMT35	**(Not display)**	-128~+127	-003
CMT36	**(Not display)**	-128~+127	+015
CMT37	**(Not display)**	000~255	064
CMT38	**(Not display)**	000~255	068

Item No.	Item	Variable range	Setting value
CMT39	**(Not display)**	000~255	078
CMT40	**(Not display)**	-128~+127	000
CMT41	**(Not display)**	-128~+127	000
CMT42	**(Not display)**	000~001	000
CMT43	**(Not display)**	000~0FF	080
CMT44	**(Not display)**	000~001	001
CMT45	**(Not display)**	000~0FF	080
CMT46	**(Not display)**	000~001	000
CMT47	**(Not display)**	000~0FF	080
CMT48	**(Not display)**	000~001	000
CMT49	**(Not display)**	000~001	001
CMT50	**(Not display)**	-016~+015	+028
CMT51	**(Not display)**	-016~+015	+028
CMT52	**(Not display)**	000~001	000
CMT53	**(Not display)**	000~001	000
CMT54	**(Not display)**	000~003	000
CMT55	**(Not display)**	000~001	000
CMT56	**(Not display)**	000~001	001
CMT57	**(Not display)**	000~001	000

4.6.5 [7.PANEL] (*All the values are fixed values.)

Item No.	Item	Variable range	Setting value
PDA001	**(Not display)**	000~255	000
PDA002	**(Not display)**	000~255	000
PDA003	**(Not display)**	000~255	000
PDA004	**(Not display)**	000~255	000
PDA005	**(Not display)**	000~001	000
PDA006	**(Not display)**	000~001	000
PDA007	**(Not display)**	000~255	000
PDA008	**(Not display)**	000~255	000
PDA009	**(Not display)**	000~255	000
PDA010	**(Not display)**	000~255	000
PDA011	**(Not display)**	000~255	000
PDA012	**(Not display)**	000~127	000

4.6.6 [8.PP]

NOTE :

Initial setting value is reference value at following condition.

INPUT SIGNAL : NTSC
ASPECT : FULL
MULTI-SCREEN : SINGLE
VIDEO STATUS : STANDARD
COLOR TEMPERATURE : LOW

Item No.	Item	Variable range	Setting value
ADM001	**(Not display)**	000~0FF	0D6
ADM002	**(Not display)**	000~00F	007

Item No.	Item	Variable range	Setting value
ADM003	**(Not display)**	000~003	001
ADM004	**(Not display)**	000~007	005
ADM005	**(Not display)**	000~01F	016
ADM006	**(Not display)**	000~0FF	036
ADM007	**(Not display)**	000~0FF	08A
ADM008	**(Not display)**	000~0FF	020
ADM009	**(Not display)**	000~0FF	0FF
ADM010	**(Not display)**	000~0FF	0B9
ADM011	**(Not display)**	000~0FF	0FF
ADM012	**(Not display)**	000~07F	035
ADM013	**(Not display)**	000~07F	02B
ADM014	**(Not display)**	000~07F	03B
ADM015	**(Not display)**	000~001	001
ADM016	**(Not display)**	000~001	001
ADM017	**(Not display)**	000~001	000
ADM018	**(Not display)**	000~001	001
ADM019	**(Not display)**	000~001	000
ADM020	**(Not display)**	000~001	000
ADM021	**(Not display)**	000~001	001
ADM022	**(Not display)**	000~001	000
ADM023	**(Not display)**	000~001	000
ADM024	**(Not display)**	000~001	001
ADM025	**(Not display)**	000~001	000
ADM026	**(Not display)**	000~001	001
ADM027	**(Not display)**	000~001	001
ADM028	**(Not display)**	000~001	001
ADM029	**(Not display)**	000~001	001
ADM030	**(Not display)**	000~01F	003
ADM031	**(Not display)**	000~001	001
ADM032	**(Not display)**	000~001	000
ADM033	**(Not display)**	000~001	001
ADM034	**(Not display)**	000~0FF	032

Item No.	Item	Variable range	Setting value
PPA001	**(Not display)**	000~255	040
PPA002	**(Not display)**	000~255	000
PPA003	**(Not display)**	000~255	05A
PPA004	**(Not display)**	000~255	000
PPA005	**(Not display)**	000~255	000
PPA006	**(Not display)**	000~255	001
PPA007	**(Not display)**	000~255	05A
PPA008	**(Not display)**	000~255	023

Item No.	Item	Variable range	Setting value
PPB001	**(Not display)**	000~031	000
PPB002	**(Not display)**	000~255	000
PPB003	**(Not display)**	000~255	000
PPB004	**(Not display)**	000~031	000
PPB005	**(Not display)**	000~255	014
PPB006	**(Not display)**	000~255	000
PPB007	**(Not display)**	000~031	000
PPB008	**(Not display)**	000~255	028
PPB009	**(Not display)**	000~255	000
PPB010	**(Not display)**	000~031	000
PPB011	**(Not display)**	000~255	000
PPB012	**(Not display)**	000~255	000
PPB013	**(Not display)**	000~031	000
PPB014	**(Not display)**	000~255	000
PPB015	**(Not display)**	000~255	000
PPB016	**(Not display)**	000~031	000
PPB017	**(Not display)**	000~255	000
PPB018	**(Not display)**	000~255	000
PPB019	**(Not display)**	000~031	000
PPB020	**(Not display)**	000~255	000
PPB021	**(Not display)**	000~255	000
PPB022	**(Not display)**	000~031	000
PPB023	**(Not display)**	000~255	000
PPB024	**(Not display)**	000~255	000
PPB025	**(Not display)**	000~031	000
PPB026	**(Not display)**	000~255	000
PPB027	**(Not display)**	000~255	000
PPB028	**(Not display)**	000~031	000
PPB029	**(Not display)**	000~255	000
PPB030	**(Not display)**	000~255	000
PPB031	**(Not display)**	000~031	000
PPB032	**(Not display)**	000~255	000
PPB033	**(Not display)**	000~255	000
PPB034	**(Not display)**	000~031	000
PPB035	**(Not display)**	000~255	000
PPB036	**(Not display)**	000~255	000

Item No.	Item	Variable range	Setting value
PPC001	**(Not display)**	000~255	000
PPC002	**(Not display)**	000~255	00E
PPC003	**(Not display)**	000~255	002
PPC004	**(Not display)**	000~001	000
PPC005	**(Not display)**	000~001	000
PPC006	**(Not display)**	000~001	000
PPC007	**(Not display)**	000~001	000
PPC008	**(Not display)**	000~001	000

Item No.	Item	Variable range	Setting value
PPC009	**(Not display)**	000~001	01C
PPC010	**(Not display)**	000~001	004

Item No.	Item	Variable range	Setting value
PPD001	**(Not display)**	000~255	008
PPD002	**(Not display)**	000~255	000
PPD003	**(Not display)**	000~255	019
PPD004	**(Not display)**	000~255	001
PPD005	**(Not display)**	000~255	09A
PPD006	**(Not display)**	000~255	000
PPD007	**(Not display)**	000~255	019
PPD008	**(Not display)**	000~255	001
PPD009	**(Not display)**	000~255	0B3
PPD010	**(Not display)**	000~255	000
PPD011	**(Not display)**	000~255	024
PPD012	**(Not display)**	000~255	001
PPD013	**(Not display)**	000~255	039
PPD014	**(Not display)**	000~255	000
PPD015	**(Not display)**	000~255	096
PPD016	**(Not display)**	000~255	001
PPD017	**(Not display)**	000~255	086
PPD018	**(Not display)**	000~255	000
PPD019	**(Not display)**	000~255	024
PPD020	**(Not display)**	000~255	001
PPD021	**(Not display)**	000~255	050
PPD022	**(Not display)**	000~255	000
PPD023	**(Not display)**	000~255	0AA
PPD024	**(Not display)**	000~255	001
PPD025	**(Not display)**	000~255	072

4.6.7 [9.IP] (*All the values are fixed values.)

NOTE :

Initial setting value is reference value at following condition.

INPUT SIGNAL : NTSC
ASPECT : FULL
MULTI-SCREEN : SINGLE
VIDEO STATUS : STANDARD
COLOR TEMPERATURE : LOW

Item No.	Item	Variable range	Setting value
IPA001	**(Not display)**	000~001	001
IPA002	**(Not display)**	000~063	01C
IPA003	**(Not display)**	000~063	018
IPA004	**(Not display)**	000~063	01C
IPA005	**(Not display)**	000~003	000
IPA006	**(Not display)**	000~003	000
IPA007	**(Not display)**	000~015	00F
IPA008	**(Not display)**	000~063	002
IPA009	**(Not display)**	000~063	003
IPA010	**(Not display)**	000~063	01B
IPA011	**(Not display)**	000~063	019
IPA012	**(Not display)**	000~063	029F
IPA013	**(Not display)**	000~003	000
IPA014	**(Not display)**	000~003	000
IPA015	**(Not display)**	000~063	00F
IPA016	**(Not display)**	000~063	003
IPA017	**(Not display)**	000~001	001
IPA018	**(Not display)**	000~063	02C
IPA019	**(Not display)**	000~001	001
IPA020	**(Not display)**	000~001	001
IPA021	**(Not display)**	000~063	015
IPA022	**(Not display)**	000~003	000
IPA023	**(Not display)**	000~063	004
IPA024	**(Not display)**	000~001	001
IPA025	**(Not display)**	000~001	001
IPA026	**(Not display)**	000~063	015
IPA027	**(Not display)**	000~003	000
IPA028	**(Not display)**	000~063	005
IPA029	**(Not display)**	000~063	000
IPA030	**(Not display)**	000~015	000
IPA031	**(Not display)**	000~007	000
IPA032	**(Not display)**	000~063	000
IPA033	**(Not display)**	000~001	000
IPA034	**(Not display)**	000~063	000
IPA035	**(Not display)**	000~001	001
IPA036	**(Not display)**	000~063	00D
IPA037	**(Not display)**	000~063	00D
IPA038	**(Not display)**	000~063	010
IPA039	**(Not display)**	000~003	001
IPA040	**(Not display)**	000~003	001
IPA041	**(Not display)**	000~015	00F
IPA042	**(Not display)**	000~063	005
IPA043	**(Not display)**	000~063	005
IPA044	**(Not display)**	000~063	00C
IPA045	**(Not display)**	000~063	00C
IPA046	**(Not display)**	000~063	00F
IPA047	**(Not display)**	000~003	001
IPA048	**(Not display)**	000~003	001
IPA049	**(Not display)**	000~015	00F
IPA050	**(Not display)**	000~063	008
IPA051	**(Not display)**	000~001	001
IPA052	**(Not display)**	000~063	008

Item No.	Item	Variable range	Setting value
IPA053	**(Not display)**	000~001	001
IPA054	**(Not display)**	000~001	001
IPA055	**(Not display)**	000~063	015
IPA056	**(Not display)**	000~003	000
IPA057	**(Not display)**	000~063	00A
IPA058	**(Not display)**	000~001	001
IPA059	**(Not display)**	000~001	001
IPA060	**(Not display)**	000~063	015
IPA061	**(Not display)**	000~003	000
IPA062	**(Not display)**	000~063	00A
IPA063	**(Not display)**	000~063	020
IPA064	**(Not display)**	000~015	008
IPA065	**(Not display)**	000~007	001
IPA066	**(Not display)**	000~063	020
IPA067	**(Not display)**	000~001	001
IPA068	**(Not display)**	000~063	020
IPA069	**(Not display)**	000~003	000
IPA070	**(Not display)**	000~255	000
IPA071	**(Not display)**	000~015	005
IPA072	**(Not display)**	000~255	0DC
IPA073	**(Not display)**	000~001	000
IPA074	**(Not display)**	000~001	000
IPA075	**(Not display)**	000~255	016
IPA076	**(Not display)**	000~001	000
IPA077	**(Not display)**	000~001	000
IPA078	**(Not display)**	000~001	000
IPA079	**(Not display)**	000~001	000
IPA080	**(Not display)**	000~001	000
IPA081	**(Not display)**	000~001	000
IPA082	**(Not display)**	000~001	000
IPA083	**(Not display)**	000~001	000
IPA084	**(Not display)**	000~001	000
IPA085	**(Not display)**	000~001	000
IPA086	**(Not display)**	000~001	000
IPA087	**(Not display)**	000~001	000
IPA088	**(Not display)**	000~001	000
IPA089	**(Not display)**	000~001	000
IPA090	**(Not display)**	000~001	000
IPA091	**(Not display)**	000~015	000
IPA092	**(Not display)**	000~255	000
IPA093	**(Not display)**	000~015	003
IPA094	**(Not display)**	000~255	0FF
IPA095	**(Not display)**	000~015	000
IPA096	**(Not display)**	000~255	000
IPA097	**(Not display)**	000~015	005

Item No.	Item	Variable range	Setting value
IPA098	**(Not display)**	000~255	0DB
IPA099	**(Not display)**	000~015	000
IPA100	**(Not display)**	000~255	000
IPA101	**(Not display)**	000~015	000
IPA102	**(Not display)**	000~255	000
IPA103	**(Not display)**	000~015	000
IPA104	**(Not display)**	000~255	000
IPA105	**(Not display)**	000~015	000
IPA106	**(Not display)**	000~255	000
IPA107	**(Not display)**	000~015	000
IPA108	**(Not display)**	000~255	080
IPA109	**(Not display)**	000~015	000
IPA110	**(Not display)**	000~255	040
IPA111	**(Not display)**	000~015	005
IPA112	**(Not display)**	000~255	040
IPA113	**(Not display)**	000~015	000
IPA114	**(Not display)**	000~255	0C0
IPA115	**(Not display)**	000~015	002
IPA116	**(Not display)**	000~255	0EF
IPA117	**(Not display)**	000~001	000
IPA118	**(Not display)**	000~001	000
IPA119	**(Not display)**	000~001	000
IPA120	**(Not display)**	000~001	000

Item No.	Item	Variable range	Setting value
IPB001	**(Not display)**	000~255	001
IPB002	**(Not display)**	000~255	00F
IPB003	**(Not display)**	000~015	000
IPB004	**(Not display)**	000~255	0B7
IPB005	**(Not display)**	000~015	002
IPB006	**(Not display)**	000~255	0C9
IPB007	**(Not display)**	000~015	002
IPB008	**(Not display)**	000~255	038
IPB009	**(Not display)**	000~015	001
IPB010	**(Not display)**	000~255	0AB
IPB011	**(Not display)**	000~015	001
IPB012	**(Not display)**	000~255	01C
IPB013	**(Not display)**	000~015	000
IPB014	**(Not display)**	000~255	08E
IPB015	**(Not display)**	000~015	000
IPB016	**(Not display)**	000~255	01D
IPB017	**(Not display)**	000~015	000
IPB018	**(Not display)**	000~255	01E
IPB019	**(Not display)**	000~015	000
IPB020	**(Not display)**	000~255	023

Item No.	Item	Variable range	Setting value
IPB021	**(Not display)**	000~015	000
IPB022	**(Not display)**	000~255	03E
IPB023	**(Not display)**	000~015	001
IPB024	**(Not display)**	000~255	07B
IPB025	**(Not display)**	000~015	000
IPB026	**(Not display)**	000~255	000
IPB027	**(Not display)**	000~015	004
IPB028	**(Not display)**	000~255	037
IPB029	**(Not display)**	000~015	000
IPB030	**(Not display)**	000~255	04C
IPB031	**(Not display)**	000~015	000
IPB032	**(Not display)**	000~255	000
IPB033	**(Not display)**	000~015	000
IPB034	**(Not display)**	000~255	000
IPB035	**(Not display)**	000~015	001
IPB036	**(Not display)**	000~255	02E
IPB037	**(Not display)**	000~001	000
IPB038	**(Not display)**	000~007	000
IPB039	**(Not display)**	000~015	000
IPB040	**(Not display)**	000~015	00F
IPB041	**(Not display)**	000~015	006
IPB042	**(Not display)**	000~255	000
IPB043	**(Not display)**	000~015	002
IPB044	**(Not display)**	000~255	038
IPB045	**(Not display)**	000~015	003
IPB046	**(Not display)**	000~255	000
IPB047	**(Not display)**	000~015	000
IPB048	**(Not display)**	000~255	0CA
IPB049	**(Not display)**	000~015	000
IPB050	**(Not display)**	000~255	0D0
IPB051	**(Not display)**	000~015	000
IPB052	**(Not display)**	000~255	000
IPB053	**(Not display)**	000~015	000
IPB054	**(Not display)**	000~255	000
IPB055	**(Not display)**	000~015	000
IPB056	**(Not display)**	000~255	0C4
IPB057	**(Not display)**	000~015	006
IPB058	**(Not display)**	000~255	040
IPB059	**(Not display)**	000~007	001
IPB060	**(Not display)**	000~003	000
IPB061	**(Not display)**	000~003	000
IPB062	**(Not display)**	000~001	000
IPB063	**(Not display)**	000~255	000
IPB064	**(Not display)**	000~255	080
IPB065	**(Not display)**	000~255	080

Item No.	Item	Variable range	Setting value
IPB066	**(Not display)**	000~001	000
IPB067	**(Not display)**	000~015	000
IPB068	**(Not display)**	000~015	000
IPB069	**(Not display)**	000~015	000
IPB070	**(Not display)**	000~015	00F
IPB071	**(Not display)**	000~255	000
IPB072	**(Not display)**	000~015	000
IPB073	**(Not display)**	000~255	000
IPB074	**(Not display)**	000~001	000
IPB075	**(Not display)**	000~001	000
IPB076	**(Not display)**	000~001	000
IPB077	**(Not display)**	000~015	009
IPB078	**(Not display)**	000~001	001
IPB079	**(Not display)**	000~255	042

Item No.	Item	Variable range	Setting value
IPC001	**(Not display)**	000~003	002
IPC002	**(Not display)**	000~255	0EA
IPC003	**(Not display)**	000~001	000
IPC004	**(Not display)**	000~001	000
IPC005	**(Not display)**	000~015	000
IPC006	**(Not display)**	000~255	000
IPC007	**(Not display)**	000~015	005
IPC008	**(Not display)**	000~255	0DB
IPC009	**(Not display)**	000~015	006
IPC010	**(Not display)**	000~255	071
IPC011	**(Not display)**	000~015	000
IPC012	**(Not display)**	000~255	000
IPC013	**(Not display)**	000~003	001
IPC014	**(Not display)**	000~001	000
IPC015	**(Not display)**	000~001	001
IPC016	**(Not display)**	000~255	0EE
IPC017	**(Not display)**	000~001	000
IPC018	**(Not display)**	000~127	000
IPC019	**(Not display)**	000~001	000
IPC020	**(Not display)**	000~127	000
IPC021	**(Not display)**	000~015	001
IPC022	**(Not display)**	000~255	03F
IPC023	**(Not display)**	000~003	002
IPC024	**(Not display)**	000~255	01E
IPC025	**(Not display)**	000~001	000
IPC026	**(Not display)**	000~127	00F
IPC027	**(Not display)**	000~001	000
IPC028	**(Not display)**	000~127	000
IPC029	**(Not display)**	000~001	001

Item No.	Item	Variable range	Setting value
IPC030	**(Not display)**	000~001	000
IPC031	**(Not display)**	000~001	000
IPC032	**(Not display)**	000~001	000
IPC033	**(Not display)**	000~001	001
IPC034	**(Not display)**	000~001	001
IPC035	**(Not display)**	000~001	000
IPC036	**(Not display)**	000~001	000
IPC037	**(Not display)**	000~001	000
IPC038	**(Not display)**	000~001	000
IPC039	**(Not display)**	000~001	000
IPC040	**(Not display)**	000~001	000
IPC041	**(Not display)**	000~001	000
IPC042	**(Not display)**	000~001	000
IPC043	**(Not display)**	000~001	000
IPC044	**(Not display)**	000~001	000

Item No.	Item	Variable range	Setting value
IPD001	**(Not display)**	000~255	040
IPD002	**(Not display)**	000~255	000
IPD003	**(Not display)**	000~255	000
IPD004	**(Not display)**	000~007	000
IPD005	**(Not display)**	000~255	01C
IPD006	**(Not display)**	000~007	000
IPD007	**(Not display)**	000~255	0E1
IPD008	**(Not display)**	000~001	000
IPD009	**(Not display)**	000~015	000
IPD010	**(Not display)**	000~255	012
IPD011	**(Not display)**	000~015	004
IPD012	**(Not display)**	000~255	0BB
IPD013	**(Not display)**	000~007	000
IPD014	**(Not display)**	000~007	000
IPD015	**(Not display)**	000~001	000
IPD016	**(Not display)**	000~001	000
IPD017	**(Not display)**	000~255	000
IPD018	**(Not display)**	000~007	000
IPD019	**(Not display)**	000~255	01D
IPD020	**(Not display)**	000~007	002
IPD021	**(Not display)**	000~255	0E6
IPD022	**(Not display)**	000~001	001
IPD023	**(Not display)**	000~015	001
IPD024	**(Not display)**	000~255	00E
IPD025	**(Not display)**	000~015	004
IPD026	**(Not display)**	000~255	0C0

Item No.	Item	Variable range	Setting value
IPE001	**(Not display)**	000~255	001
IPE002	**(Not display)**	000~255	002
IPE003	**(Not display)**	000~255	001
IPE004	**(Not display)**	000~255	002
IPE005	**(Not display)**	000~255	001
IPE006	**(Not display)**	000~255	002
IPE007	**(Not display)**	000~255	001
IPE008	**(Not display)**	000~255	002
IPE009	**(Not display)**	-128~+127	+005
IPE010	**(Not display)**	-128~+127	+006
IPE011	**(Not display)**	-128~+127	+005
IPE012	**(Not display)**	-128~+127	+005
IPE013	**(Not display)**	-128~+127	-005
IPE014	**(Not display)**	-128~+127	+005
IPE015	**(Not display)**	000~015	001

4.6.8 [0.HDMI] *All the values are fixed values.

Item No.	Item	Variable range	Setting value
HDM001	**(Not display)**	000~001	000
HDM002	**(Not display)**	000~001	000
HDM003	**(Not display)**	000~001	000
HDM004	**(Not display)**	000~001	000
HDM005	**(Not display)**	000~001	000
HDM006	**(Not display)**	000~003	000
HDM007	**(Not display)**	000~001	000
HDM008	**(Not display)**	000~001	000
HDM009	**(Not display)**	000~001	000
HDM010	**(Not display)**	000~001	000
HDM011	**(Not display)**	000~001	000
HDM012	**(Not display)**	000~001	000
HDM013	**(Not display)**	000~001	000
HDM014	**(Not display)**	000~001	000
HDM015	**(Not display)**	000~001	000
HDM016	**(Not display)**	000~255	000
HDM017	**(Not display)**	000~255	000
HDM018	**(Not display)**	000~255	000
HDM019	**(Not display)**	000~001	000
HDM020	**(Not display)**	000~255	000
HDM021	**(Not display)**	000~007	000
HDM022	**(Not display)**	000~063	000
HDM023	**(Not display)**	000~063	000
HDM024	**(Not display)**	000~063	000
HDM025	**(Not display)**	000~001	000
HDM026	**(Not display)**	000~003	000
HDM027	**(Not display)**	000~255	000

Item No.	Item	Variable range	Setting value
HDM028	**(Not display)**	000~003	000
HDM029	**(Not display)**	000~255	000
HDM030	**(Not display)**	000~003	000
HDM031	**(Not display)**	000~255	000
HDM032	**(Not display)**	000~003	000
HDM033	**(Not display)**	000~255	000
HDM034	**(Not display)**	000~003	000
HDM035	**(Not display)**	000~255	000
HDM036	**(Not display)**	000~255	000
HDM037	**(Not display)**	000~255	000
HDM038	**(Not display)**	000~255	000
HDM039	**(Not display)**	000~001	000
HDM040	**(Not display)**	000~001	000
HDM041	**(Not display)**	000~001	000
HDM042	**(Not display)**	000~255	000
HDM043	**(Not display)**	000~007	000
HDM044	**(Not display)**	000~003	000
HDM045	**(Not display)**	000~003	000
HDM046	**(Not display)**	000~001	000
HDM047	**(Not display)**	000~015	000
HDM048	**(Not display)**	000~255	000
HDM049	**(Not display)**	000~255	000
HDM050	**(Not display)**	000~015	000
HDM051	**(Not display)**	000~001	000
HDM052	**(Not display)**	000~001	000
HDM053	**(Not display)**	000~001	000
HDM054	**(Not display)**	000~001	000
HDM055	**(Not display)**	000~001	000
HDM056	**(Not display)**	000~001	000
HDM057	**(Not display)**	000~001	000
HDM058	**(Not display)**	000~001	000
HDM059	**(Not display)**	000~001	000
HDM060	**(Not display)**	000~001	000
HDM061	**(Not display)**	000~001	000
HDM062	**(Not display)**	000~001	000
HDM063	**(Not display)**	000~001	000
HDM064	**(Not display)**	000~001	000
HDM065	**(Not display)**	000~001	000
HDM066	**(Not display)**	000~001	000
HDM067	**(Not display)**	000~001	000
HDM068	**(Not display)**	000~031	000
HDM069	**(Not display)**	000~001	000
HDM070	**(Not display)**	000~001	000
HDM071	**(Not display)**	000~001	000
HDM072	**(Not display)**	000~001	000

Item No.	Item	Variable range	Setting value
HDM073	**(Not display)**	000~001	000
HDM074	**(Not display)**	000~031	000
HDM075	**(Not display)**	000~001	000
HDM076	**(Not display)**	000~001	000
HDM077	**(Not display)**	000~001	000
HDM078	**(Not display)**	000~001	000
HDM079	**(Not display)**	000~001	000
HDM080	**(Not display)**	000~001	000

Item No.	Item	Variable range	Setting value
RHD001	**(Not display)**	---	000
RHD002	**(Not display)**	---	000
RHD003	**(Not display)**	---	000
RHD004	**(Not display)**	---	000
RHD005	**(Not display)**	---	000
RHD006	**(Not display)**	---	000
RHD007	**(Not display)**	---	000
RHD008	**(Not display)**	---	000
RHD009	**(Not display)**	---	000
RHD010	**(Not display)**	---	000
RHD011	**(Not display)**	---	000
RHD012	**(Not display)**	---	000
RHD013	**(Not display)**	---	000
RHD014	**(Not display)**	---	000
RHD015	**(Not display)**	---	000
RHD016	**(Not display)**	---	000
RHD017	**(Not display)**	---	000
RHD018	**(Not display)**	---	000
RHD019	**(Not display)**	---	000
RHD020	**(Not display)**	---	000
RHD021	**(Not display)**	---	000
RHD022	**(Not display)**	---	000
RHD023	**(Not display)**	---	000
RHD024	**(Not display)**	---	000
RHD025	**(Not display)**	---	000
RHD026	**(Not display)**	---	000
RHD027	**(Not display)**	---	000
RHD028	**(Not display)**	---	000
RHD029	**(Not display)**	---	000
RHD030	**(Not display)**	---	000
RHD031	**(Not display)**	---	000
RHD032	**(Not display)**	---	000
RHD033	**(Not display)**	---	000
RHD034	**(Not display)**	---	000
RHD035	**(Not display)**	---	000

Item No.	Item	Variable range	Setting value
RHD036	**(Not display)**	---	000
RHD037	**(Not display)**	---	000
RHD038	**(Not display)**	---	000
RHD039	**(Not display)**	---	000
RHD040	**(Not display)**	---	000
RHD041	**(Not display)**	---	000
RHD042	**(Not display)**	---	000
RHD043	**(Not display)**	---	000
RHD044	**(Not display)**	---	000
RHD045	**(Not display)**	---	000
RHD046	**(Not display)**	---	000
RHD047	**(Not display)**	---	000
RHD048	**(Not display)**	---	000
RHD049	**(Not display)**	---	000
RHD050	**(Not display)**	---	000
RHD051	**(Not display)**	---	000
RHD052	**(Not display)**	---	000
RHD053	**(Not display)**	---	000
RHD054	**(Not display)**	---	000
RHD055	**(Not display)**	---	000
RHD056	**(Not display)**	---	000
RHD057	**(Not display)**	---	000
RHD058	**(Not display)**	---	000
RHD059	**(Not display)**	---	000
RHD060	**(Not display)**	---	000
RHD061	**(Not display)**	---	000
RHD062	**(Not display)**	---	000
RHD063	**(Not display)**	---	000
RHD064	**(Not display)**	---	000
RHD065	**(Not display)**	---	000
RHD066	**(Not display)**	---	000
RHD067	**(Not display)**	---	000
RHD068	**(Not display)**	---	000
RHD069	**(Not display)**	---	000
RHD070	**(Not display)**	---	000
RHD071	**(Not display)**	---	000
RHD072	**(Not display)**	---	000
RHD073	**(Not display)**	---	000
RHD074	**(Not display)**	---	000
RHD075	**(Not display)**	---	000
RHD076	**(Not display)**	---	000
RHD077	**(Not display)**	---	000
RHD078	**(Not display)**	---	000
RHD079	**(Not display)**	---	000
RHD080	**(Not display)**	---	000

Item No.	Item	Variable range	Setting value
RHD081	**(Not display)**	---	000
RHD082	**(Not display)**	---	000
RHD083	**(Not display)**	---	000
RHD084	**(Not display)**	---	000
RHD085	**(Not display)**	---	000
RHD086	**(Not display)**	---	000
RHD087	**(Not display)**	---	000
RHD088	**(Not display)**	---	000
RHD089	**(Not display)**	---	000
RHD090	**(Not display)**	---	000
RHD091	**(Not display)**	---	000
RHD092	**(Not display)**	---	000
RHD093	**(Not display)**	---	000
RHD094	**(Not display)**	---	000
RHD095	**(Not display)**	---	000
RHD096	**(Not display)**	---	000
RHD097	**(Not display)**	---	000
RHD098	**(Not display)**	---	000
RHD009	**(Not display)**	---	000
RHD100	**(Not display)**	---	000
RHD101	**(Not display)**	---	000
RHD102	**(Not display)**	---	000
RHD103	**(Not display)**	---	000
RHD104	**(Not display)**	---	000
RHD105	**(Not display)**	---	000
RHD106	**(Not display)**	---	000
RHD107	**(Not display)**	---	000
RHD108	**(Not display)**	---	000
RHD109	**(Not display)**	---	000
RHD110	**(Not display)**	---	000
RHD111	**(Not display)**	---	000
RHD112	**(Not display)**	---	000
RHD113	**(Not display)**	---	000
RHD114	**(Not display)**	---	000
RHD115	**(Not display)**	---	000
RHD116	**(Not display)**	---	000
RHD117	**(Not display)**	---	000
RHD118	**(Not display)**	---	000
RHD119	**(Not display)**	---	000
RHD120	**(Not display)**	---	000
RHD121	**(Not display)**	---	000
RHD122	**(Not display)**	---	000
RHD123	**(Not display)**	---	000
RHD124	**(Not display)**	---	000
RHD125	**(Not display)**	---	000

Item No.	Item	Variable range	Setting value
RHD126	**(Not display)**	---	000
RHD127	**(Not display)**	---	000
RHD128	**(Not display)**	---	000
RHD129	**(Not display)**	---	000
RHD130	**(Not display)**	---	000
RHD131	**(Not display)**	---	000
RHD132	**(Not display)**	---	000
RHD133	**(Not display)**	---	000
RHD134	**(Not display)**	---	000
RHD135	**(Not display)**	---	000
RHD136	**(Not display)**	---	000
RHD137	**(Not display)**	---	000
RHD138	**(Not display)**	---	000
RHD139	**(Not display)**	---	000
RHD140	**(Not display)**	---	000
RHD141	**(Not display)**	---	000
RHD142	**(Not display)**	---	000
RHD143	**(Not display)**	---	000
RHD144	**(Not display)**	---	000
RHD145	**(Not display)**	---	000
RHD146	**(Not display)**	---	000
RHD147	**(Not display)**	---	000
RHD148	**(Not display)**	---	000
RHD149	**(Not display)**	---	000
RHD150	**(Not display)**	---	000
RHD151	**(Not display)**	---	000
RHD152	**(Not display)**	---	000
RHD153	**(Not display)**	---	000
RHD154	**(Not display)**	---	000
RHD155	**(Not display)**	---	000
RHD156	**(Not display)**	---	000
RHD157	**(Not display)**	---	000
RHD158	**(Not display)**	---	000
RHD159	**(Not display)**	---	000
RHD160	**(Not display)**	---	000
RHD161	**(Not display)**	---	000
RHD162	**(Not display)**	---	000
RHD163	**(Not display)**	---	000
RHD164	**(Not display)**	---	000
RHD165	**(Not display)**	---	000
RHD166	**(Not display)**	---	000
RHD167	**(Not display)**	---	000
RHD168	**(Not display)**	---	000
RHD169	**(Not display)**	---	000
RHD170	**(Not display)**	---	000

4.7 ADJUSTMENT PROCEDURE

4.7.1 SETTING BEFORE ADJUSTMENT

(1) Check the following settings before adjustment.

Item	setting value	contents
S19	128	R CUT OFF
S21	128	G CUT OFF
S23	128	B CUT OFF

(2) Take note of initial values in the following table before adjustment. Then, set the values to adjustment setting values shown in the following table. After adjustment procedure, return the values to the initial values you have taken note of (except white balance adjustment).
The values can be set for each input signal (NTSC etc.), but the values are basically the same among the input signals.
Since the values are not adjusted for 525p/750p (because the values change according to the reference adjustment values), you do not have to take note of the values if unnecessary.

Item	Initial value NTSC	Initial value 525p	Initial value 1125i	Initial value 750p	setting value	contents
S13					255	R DRIVE
S15					255	G DRIVE
S17					255	B DRIVE

(3) Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit:

Setting item	Settings
VIDEO STATUS	STANDARD
BRIGHT / CONTRAST / COLOR / TINT	00
COLOR TEMPERATURE	LOW
DIG. NOISE CLEAR	OFF
COLOR MANEGMENT	STANDARD
NATURAL CINEMA	OFF
TREBLE / BASS / BALANCE	00
BBE	OFF
A.H.S	OFF
A.H.B	OFF
ASPECT	FULL

NOTE:
Follow the order instructed in adjustment procedure.

4.7.2 VIDEO CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
COMPONENT INPUT BLACK LEVEL	Remote control unit Signal generator		[8.PP] ADM013: (NO DISPLAY) (G offset) [1. PICTURE/SOUND] S13: RDRV (R DRIVE) S15: GDRV (G DRIVE) S17: BDRV (B DRIVE) S19: CUTR (R CUTOFF) S21: CUTG (G CUTOFF) S23: CUTB (B CUTOFF) F44: (NO DISPLAY) (Picture control) F45: (NO DISPLAY) (Picture control mode sw) F46: OUT LV. (Output level upon detection) F47: LMT BTM (Minimum value upon detection) F48: LMT TOP (Maximum value upon detection)	(1) Input 525i signal that shows brightness gradation with 0% black into a component input terminal. (2) Set “VIDEO STATUS” to STANDARD. (3) Set “ASPECT” to FULL. (4) Select "COLOR TEMPERATURE" to LOW. (5) Select "1.PICTURE/SOUND" from the SERVICE MODE. (6) Set < F44 > (Picture control) to "001" and < F45 > (Picture control mode sw) to "000" to set Y ADJUST MAX MODE. (7) Set < F46 > (Output level upon detection),< F47 > (Minimum value upon detection), and < F48 > (Maximum value upon detection) to values as shown in the left table. (8) Press the [MUTING] key to memoirze the set value. (9) Select "8.PP" from the SERVICE MODE. (10) Adjust < ADM013 > (G OFFSET) to set the 0% black part on the upper half of the screen to maximum brightness. (Fig.2) (11) Add reference offset value "0" to the < ADM013 > (G OFFSET) value. (12) Press the [MUTING] key to memoirze the set value. (13) Select "1.PICTURE/SOUND" from the SERVICE MODE. (14) Check the black level. Adjust the black level again if it is not proper. (15) Set < F44 > (Picture control) to "001" to cancel Y ADJUST MAX MODE. (16) Press the [MUTING] key to memoirze the set value. (17) Input 1125i signal. (18) Repeat steps (5) to (16) above.

Item No.	Setting value	Adjustment item
F46	090	Output level upon detection
F47	016	Minimum value upon detection
F48	016	Maximum value upon detection

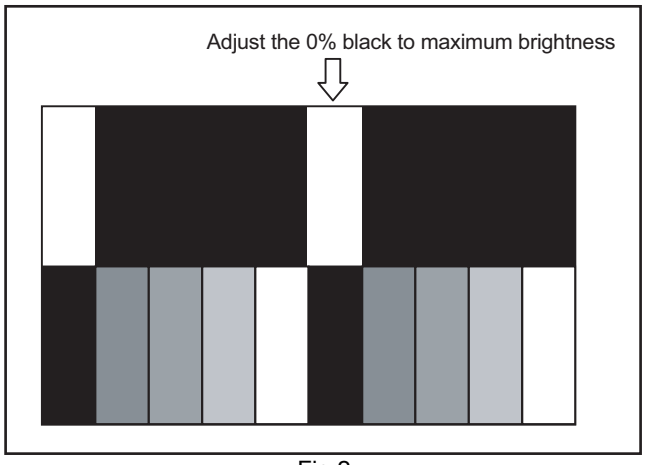


Fig.2

Item	Measuring instrument	Test point	Adjustment part	Description
COMPONENT INPUT A-D CONVERTER GAIN	Remote control unit Signal generator		[8.PP] ADM010: (NO DISPLAY) (G GAIN) [1. PICTURE/SOUND] S13: RDRV (R DRIVE) S15: GDRV (G DRIVE) S17: BDRV (B DRIVE) S19: CUTR (R CUTOFF) S21: CUTG (G CUTOFF) S23: CUTB (B CUTOFF) F44: (NO DISPLAY) (Picture control) F45: (NO DISPLAY) (Picture control mode sw) F46: OUT LV. (Output level upon detection) F47: LMT BTM (Minimum value upon Detection) F48: LMT TOP (Maximum value upon detection)	(1) Input 525i 100% all-white signal into a component input terminal. (2) Set "VIDEO STATUS" to STANDARD. (3) Set "ASPECT" to FULL. (4) Select "COLOR TEMPERATURE" to LOW. (5) Select "1.PICTURE/SOUND" from the SERVICE MODE. (6) Set < F44 > (Picture control) to "001" and < F45 > (Picture control mode sw) to "000" to set Y ADJUST MAX MODE. (7) Set < F46 > (Output level upon detection), < F47 > (Minimum value upon detection), and < F48 > (Maximum value upon detection) to values as shown in the left table. (8) Press the [MUTING] key to memoirze the set value. (9) Select "8.PP" from the SERVICE MODE. (10) Adjust < ADM010 > (G GAIN) to set the upper half of the screen to maximum brightness. (Fig.3) (11) Press the [MUTING] key to memoirze the set value. (12) Check the black level. Perform the "BLACK LEVEL Adjustment" again if the adjusted value is not proper. (13) Select "1.PICTURE/SOUND" from the SERVICE MODE. (14) Set < F44 > (Picture control) to "000" to cancel Y ADJUST MAX MODE. (15) Press the [MUTING] key to memoirze the set value. (16) Input 1125i signal. (17) Repeat steps (5) to (15) above.

Item No.	Setting value	Adjustment item
F46	090	Output level upon detection
F47	220	Minimum value upon detection
F48	220	Maximum value upon detection

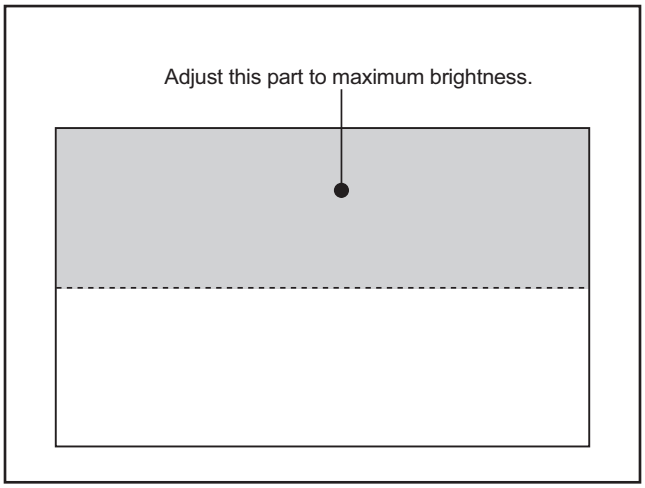


Fig.3

Item	Measuring instrument	Test point	Adjustment part	Description
COMPONENT INPUT A-D CONVERTER OFFSET	Remote control unit Signal generator		[8.PP] ADM012: (NO DISPLAY) (R OFFSET) ADM014: (NO DISPLAY) (B OFFSET) [1. PICTURE/SOUND] S13: RDRV (R DRIVE) S15: GDRV (G DRIVE) S17: BDRV (B DRIVE) S19: CUTR (R CUTOFF) S21: CUTG (G CUTOFF) S23: CUTB (B CUTOFF) F44: (NO DISPLAY) (Picture control) F45: (NO DISPLAY) (Picture control mode sw) F46: OUT LV. (Output level upon detection) F47: LMT BTM (Minimum value upon detection) F48: LMT TOP (Maximum value upon detection)	(1) Input 525i component 30% all-white signal into a component input terminal. (2) Set "VIDEO STATUS" to STANDARD. (3) Set "ASPECT" to FULL. (4) Select "COLOR TEMPERATURE" to LOW. (5) Select "1.PICTURE/SOUND" from the SERVICE MODE. (6) Set < F44 > (Picture control) to "001" and < F45 > (Picture control mode sw) to "003" to set the chrominance adjustment zero mode. (7) Set < F46 > (Output level upon detection), < F47 > (Minimum value upon detection), and < F48 > (Maximum value upon detection) to values as shown in the left table. (8) Press the [MUTING] key to memoirze the set value. (9) Select "8.PP" from the SERVICE MODE. (10) Change the value of < ADM014 > (B OFFSET) from the initial value in the range of ±5 to set the upper half of the screen magenta. (11) Adjust < ADM012 > (R OFFSET) to change the upper half of the screen from magenta to blue. (12) Take a note of the value of < ADM012 > (R OFFSET) adjusted in (11). (13) Change the value of < ADM012 > (R OFFSET) from the value that you have taken note of in the range of ±5 to set the upper half of the screen magenta. (14) Adjust < ADM014 > (B OFFSET) to change the upper half of the screen from magenta to red. (15) Return the value of < ADM012 > (R OFFSET) to the value that you have taken note of in (12). (16) Press the [MUTING] key to memoirze the set value. (17) Set the SPLIT screen mode. (18) Input monochrome signal such as cross hatch both to the right and the left screen. (19) Set < ADM012 > (R OFFSET) and < ADM014 > (B OFFSET) to the same values as in single-screen mode. (20) Press the [MUTING] key to memoirze the set value. (21) Set < F44 > (Picture control) to "000" to cancel the chrominance adjustment zero mode. (22) Press the [MUTING] key to memoirze the set value. (23) Input 1125i 30% all-white signal. (24) Repeat steps (5) to (22) above.

Item No.	Setting value	Adjustment item
F46	090	Output level upon detection
F47	000	Minimum value upon detection
F48	000	Maximum value upon detection

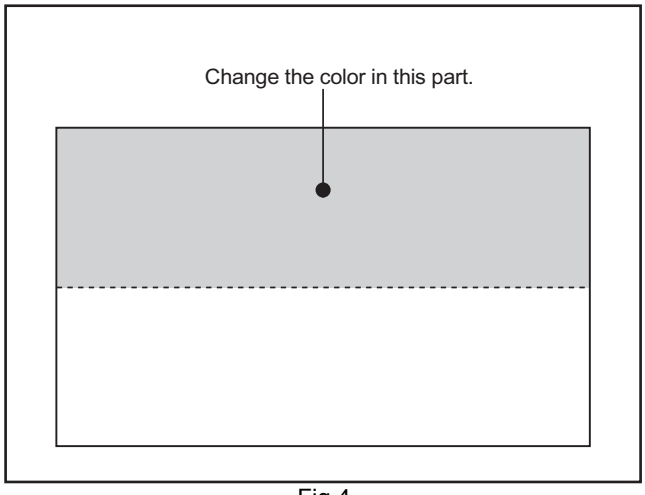


Fig.4

Item	Measuring instrument	Test point	Adjustment part	Description
COMPOSITE INPUT BLACK LEVEL	Remote control unit Signal generator		[2. YC SEP] YCM131: (NO DISPLAY) (BRIGHTNESS) [1. PICTURE/SOUND] S13: RDRV (R DRIVE) S15: GDRV (G DRIVE) S17: BDRV (B DRIVE) S19: CUTR (R CUTOFF) S21: CUTG (G CUTOFF) S23: CUTB (B CUTOFF) F44: (NO DISPLAY) (Picture control) F45: (NO DISPLAY) (Picture control mode sw) F46: OUT LV. (Output level upon detection) F47: LMT BTM (Minimum value upon detection) F48: LMT TOP (Maximum value upon detection)	(1) Input NTSC signal that shows brightness gradation with 0% black. (2) Set "VIDEO STATUS" to STANDARD. (3) Set "ASPECT" to FULL. (4) Select "COLOR TEMPERATURE" to LOW. (5) Select "1.PICTURE/SOUND" from the SERVICE MODE. (6) Set < F44 > (Picture control) to "001" and < F45 > (Picture control mode sw) to "000" to set Y ADJUST MAX MODE. (7) Set < F46 > (Output level upon detection), < F47 > (Minimum value upon detection), and < F48 > (Maximum value upon detection) to values as shown in the left table. (8) Select "2. YC SEP" from the SERVICE MODE. (9) Adjust < YCM131 > (BRIGHTNESS) so that 0% part of gradation is the brightest. (Fig. 5) (10) Press the [MUTING] key to memoirze the set value. (11) Select "1.PICTURE/SOUND" from the SERVICE MODE. (12) Set < F44 > (Picture control) to "000" to cancel Y ADJUST MAX MODE. (13) Press the [MUTING] key to memoirze the set value.

Item No.	Setting value	Adjustment item
F46	090	Output level upon detection
F47	016	Minimum value upon detection
F48	016	Maximum value upon detection

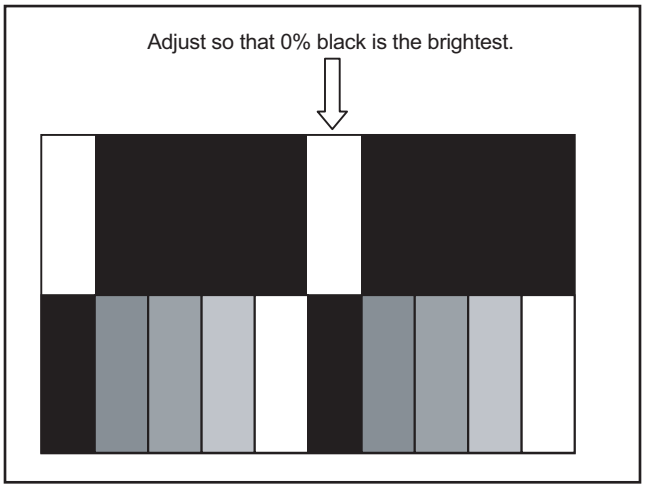


Fig.5

Item	Measuring instrument	Test point	Adjustment part	Description
COMPOSITE INPUT A-D CONVERTER OFFSET	Remote control unit Signal generator		[2. YC SEP] YCM132: (NO DISPLAY) (CONTRAST) [1. PICTURE/SOUND] S13: RDRV (R DRIVE) S15: GDRV (G DRIVE) S17: BDRV (B DRIVE) S19: CUTR (R CUTOFF) S21: CUTG (G CUTOFF) S23: CUTB (B CUTOFF) F44: (NO DISPLAY) (Picture control) F45: (NO DISPLAY) (Picture control mode sw) F46: OUT LV. (Output level upon detection) F47: LMT BTM (Minimum value upon detection) F48: LMT TOP (Maximum value upon detection)	(1) Input a signal that shows brightness gradation with 75% white. (2) Set "VIDEO STATUS" to STANDARD. (3) Set "ASPECT" to FULL. (4) Select "COLOR TEMPERATURE" to LOW. (5) Select "1.PICTURE/SOUND" from the SERVICE MODE. (6) Set < F44 > (Picture control) to "001" and <F45 > (Picture control mode sw) to "000" to set Y ADJUST MAX MODE. (7) Set < F46 > (Output level upon detection), < F47 > (Minimum value upon detection), and < F48 > (Maximum value upon detection) to values as shown in the left table. (8) Select "2.YC SEP" from the SERVICE MODE. (9) Adjust < YCM132 > (CONTRAST) so that the 75% white of gradation is white. (Fig.6) (10) Press the [MUTING] key to memoirze the set value. (11) Check the black level adjusted in composite input black level adjustment. Perform the "Composite input black level Adjustment" again if the adjusted value is not proper. (12) Perform (9) and (10) if you readjust the black level in (11). (13) Select "1.PICTURE/SOUND" from the SERVICE MODE. (14) Set < F44 > (Picture control) to "000" to cancel Y ADJUST MAX MODE. (15) Press the [MUTING] key to memoirze the set value.

Item No.	Setting value	Adjustment item
F46	090	Output level upon detection
F47	165	Minimum value upon detection
F48	165	Maximum value upon detection

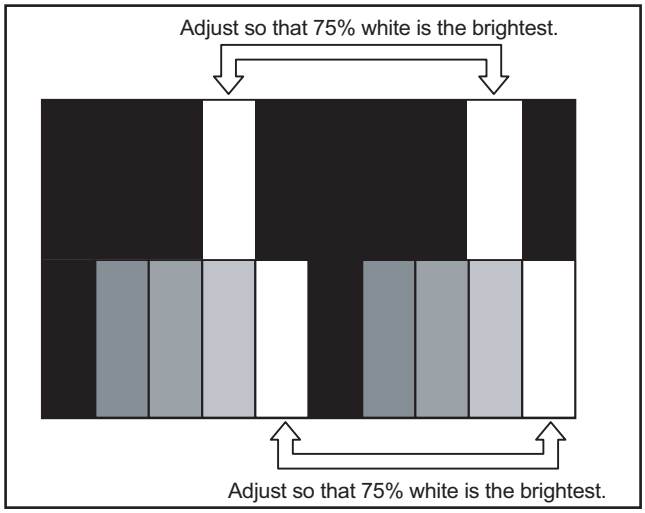


Fig.6

Item	Measuring instrument	Test point	Adjustment part	Description
SUB-SCREEN BLACK LEVEL	Remote control unit Signal generator		[8. PP] ADM013: (NO DISPLAY) (G offset) [1. PICTURE/SOUND] S13: RDRV (R DRIVE) S15: GDRV (G DRIVE) S17: BDRV (B DRIVE) S19: CUTR (R CUTOFF) S21: CUTG (G CUTOFF) S23: CUTB (B CUTOFF) F44: (NO DISPLAY) (Picture control) F45: (NO DISPLAY) (Picture control mode sw) F46: OUT LV. (Output level upon detection) F47: LMT BTM (Minimum value upon detection) F48: LMT TOP (Maximum value upon detection)	(1) Input NTSC signal that shows brightness gradation with 0% black into both the right and the left screen. (2) Set "VIDEO STATUS" to STANDARD. (3) Set "ASPECT" to FULL. (4) Select "COLOR TEMPERATURE" to LOW. (5) Set SPLIT screen mode. (6) Select "1.PICTURE/SOUND" from the SERVICE MODE for the right screen. (7) Set < F44 > (Picture control) to "001" and <F45 > (Picture control mode sw) to "000" to set Y ADJUST MAX MODE. (8) Set < F46 > (Output level upon detection), < F47 > (Minimum value upon detection), and < F48 > (Maximum value upon detection) to values as shown in the left table. (9) Press the [MUTING] key to memoirze the set value. (10) Select "8.PP" from the SERVICE MODE. (11) Adjust < ADM013 > (G OFFSET) to set the 0% black part on the upper right half of the screen to the same color as on the upper left half of the screen. (Fig.7) (12) Press the [MUTING] key to memoirze the set value. (13) Select "1.PICTURE/SOUND" from the SERVICE MODE. (14) Set < F44 > (Picture control) to "000" to cancel Y ADJUST MAX MODE (15) Press the [MUTING] key to memoirze the set value.

Item No.	Setting value	Adjustment item
F46	090	Output level upon detection
F47	016	Minimum value upon detection
F48	016	Maximum value upon detection

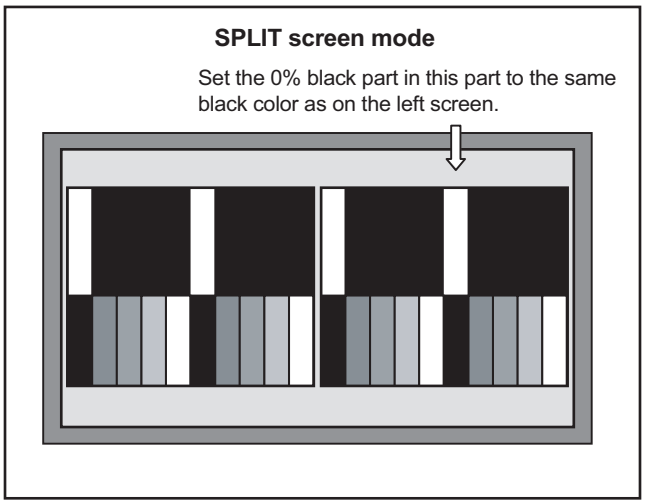


Fig.7

Item	Measuring instrument	Test point	Adjustment part	Description
SUB-SCREEN A-D CONVERTER GAIN	Remote control unit Signal generator		[8. PP] ADM010: (NO DISPLAY) (G GAIN) [1. PICTURE/SOUND] S13: RDRV (R DRIVE) S15: GDRV (G DRIVE) S17: BDRV (B DRIVE) S19: CUTR (R CUTOFF) S21: CUTG (G CUTOFF) S23: CUTB (B CUTOFF) F44: (NO DISPLAY) (Picture control) F45: (NO DISPLAY) (Picture control mode sw) F46: OUT LV. (Output level upon detection) F47: LMT BTM (Minimum value upon detection) F48: LMT TOP (Maximum value upon detection)	(1) Input NTSC signal that shows brightness gradation with 75% white into both the right and the left screen. (2) Set "VIDEO STATUS" to STANDARD. (3) Set "ASPECT" to FULL. (4) Select "COLOR TEMPERATURE" to LOW. (5) Set SPLIT screen mode. (6) Select "1.PICTURE/SOUND" from the SERVICE MODE for the right screen. (7) Set < F44 > (Picture control) to "001" and <F45 > (Picture control mode sw) to "000" to set Y ADJUST MAX mode. (8) Set < F46 > (Output level upon detection), < F47 > (Minimum value upon detection), and < F48 > (Maximum value upon detection) to values as shown in the left table. (9) Press the [MUTING] key to memoirze the set value. (10) Select "8.PP" from the SERVICE MODE. (11) Adjust < ADM010 > (G OFFSET) so that the 75% white part on the upper right part of the screen is white. (Fig.8) (12) Press the [MUTING] key to memoirze the set value. (13) Check the black level adjusted in "SPLIT screen BLACK LEVEL adjustment". Adjust the black level of SUB SCREEN again if it is not proper. (14) Select "1.PICTURE/SOUND" from the SERVICE MODE. (15) Set < F44 > (Picture control) to "000" to cancel Y ADJUST MAX MODE. (16) Press the [MUTING] key to memoirze the set value.

Item No.	Setting value	Adjustment item
F46	090	Output level upon detection
F47	168	Minimum value upon detection
F48	168	Maximum value upon detection

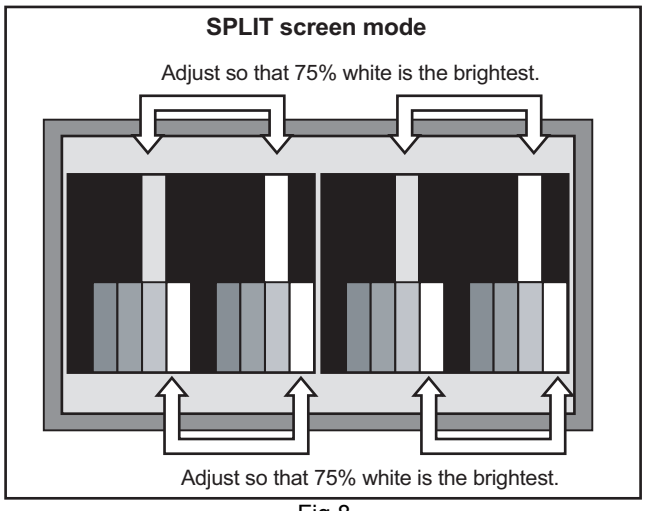
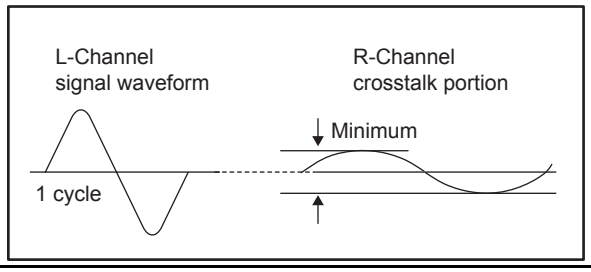


Fig.8

Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE (HIGHLIGHT)	Remote control unit Signal generator		[1. PICTURE/SOUND] S13: RDRV (R DRIVE) S15: GDRV (G DRIVE) S17: BDRV (B DRIVE) S19: CUTR (R CUTOFF) S21: CUTG (G CUTOFF)	(1) Input NTSC 75% all-white signal. (2) Set "VIDEO STATUS" to STANDARD. (3) Set "ASPECT" to FULL. (4) Select "COLOR TEMPERATURE" to LOW. (5) Select "1.PICTURE/SOUND" from the SERVICE MODE. (6) Fix one of < S13 > (R DRIVE), < S15 > (G DRIVE), or < S17 > (B DRIVE). Lower the two that are not fixed so that the all-white screen is equally white throughout. **Set one or more of < S13 >, < S15 >, and < S17 > to "255".** (7) Check that white balance is properly tracked from lowlight to highlight. (8) Press the [MUTING] key to memoirze the set value. (9) Input 1125i 75% all-white signal. (10) Repeat steps (5) to (8) above. (11) Input 525i all-white signal. (12) Repeat steps (5) to (8) above.

4.7.3 MTS CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
MTS INPUT LEVEL	MPX Signal generator Remote control unit		[1.PICTURE/SOUND] A18: IN LEVEL	(1) Input the color bar signal (400Hz). (2) Select 1.PICTURE/SOUND from the SERVICE MODE. (3) Verify that the < A18 > (IN LEVEL) is set at its initial setting value. (4) Press the [MUTING] key to memorize the set value.
MTS SEPARATION	TV audio multiplex signal generator Oscilloscope Remote control unit	L OUT R OUT	[1.PICTURE/SOUND] A19: LOW SEP A20: HI SEP	(1) Input the stereo L signal (300Hz) from the TV audio multiplex signal generator to the antenna terminal. (2) Connect an oscilloscope to L OUT pin of the MONITOR OUT, and display one cycle portion of the 300Hz signal. (3) Change the connection of the oscilloscope to R OUT pin of the MONITOR OUT, and enlarge the voltage axis. (4) Select 1.PICTURE/SOUND from the SERVICE MODE. (5) Set the initial setting value of the < A19 > (LOW SEP). (6) Adjust the < A19 > so that the stroke element of the 300Hz signal will become minimum. (7) Change the signal to 3kHz, and similarly adjust the < A20 > (HI SEP). (8) Press the [MUTING] key to memorize the set value.
				

SECTION 5
TROUBLESHOOTING

5.1 SELF-DIAGNOSIS FEATURE

5.1.1 OUTLINE

This unit comes with the "Self-diagnosis" feature, which checks the operational state of the circuit and displays/saves it during failure.Diagnosis is performed when power is turned on, and information input to the main microcomputer is monitored at all time.Diagnosis is displayed in 2 ways via screen display and LED flashes. Failure detection is based on input state of I^2C bus and the various control lines connected to the main microcomputer.

5.1.2 HOW TO ENTER THE SELF-DIAGNOSIS DISPLAY MODE

Before entering the Self-diagnosis Display mode, confirm that the setting of TV / CATV SW of the REMOTE CONTROL UNIT is at the "TV" side and the setting of VCR / DVD SW is at the "VCR" side. If the switches have not been properly set, you cannot enter the Self-diagnosis Display mode.

(1) Press the [SLEEP TIMER] key and set it to 30 minutes.
(2) Press the [VIDEO STATUS] key and [DISPLY] key simultaneously, then enter the TEST MODE.
(3) Press the [4] key (Self-diagnosis Display mode) before the service mode screen disappears.
(4) Press the [MTS] key to enter Page 2 of the Self-diagnosis Display mode.
*Use the [MTS] key to toggle between Page 1 and Page 2.

NOTE:
The remote control unit attached to this set does not contain the [MTS] key. To perform the procedure (4), use a remote control unit that contains the [MTS] key.

5.1.3 HOW TO EXIT THE SELF-DIAGNOSIS DISPLAY MODE

To Save Failure History:
Turn off the power by unplugging the AC power cord plug when in the self-diagnosis display mode.
To Clear (Reset) Failure History:
Turn off the power by pressing the [POWER] key on the remote control unit when in the self-diagnosis display mode.

5.1.4 FAILURE HISTORY

Failure history can be counted up to 9 times for each item.When the number exceeds 9, display will remain as 9. Failure history will be stored in the memory unless it has been deleted.

NOTE:
Only SYNC (with/without sync signals) will be neither counted nor stored.

5.1.5 POINTS TO NOTE WHEN USING THE SELF-DIAGNOSIS FEATURE

In addition to circuit failures (abnormal operation), the following cases may also be iagnosed as "Abnormal" and displayed and counted as "NG".

(1) Temporary defective transmissions across circuits due to pulse interruptions
(2) Misalignment in the on/off timing of power for I^2C bus (VCC) when turning on/off the main power.

Diagnosis may be impeded if a large number of items are displayed as "NG". As such, start self-diagnosis check only after 3 seconds in the case of receivers and 5 seconds in the case of panels upon turning on the power. If recurrences are expected, ensure to clear (reset) the failure history and record the new diagnosis reults.

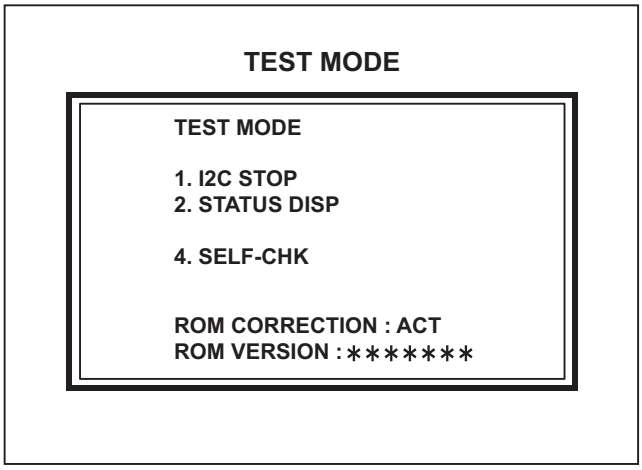


Fig.1

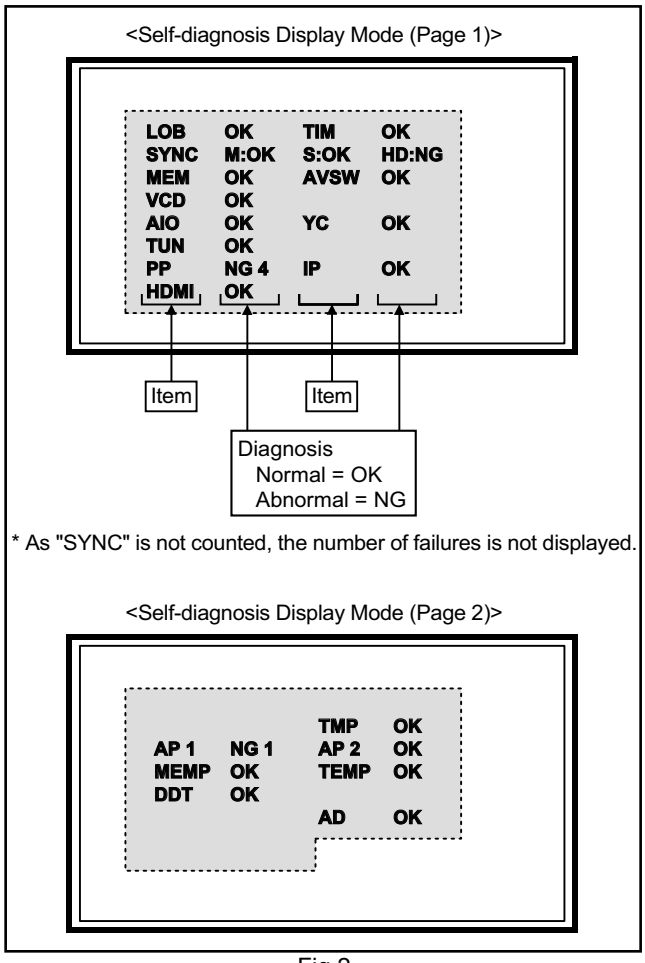


Fig.2

5.1.6 DETAILS

Self-diagnosis is performed for the following items:

• **PAGE 1**

Item	Display	Description of detection	Diagnosis signal (line)	Means of detection
LOW B LINE SHORT PROTECTION	LOB	Was Low B line short protector activated? No. of times short circuit protection is triggered [POWER PWB] (3.3V / LCD 5V / 9V / 13V / AVCC)	PROTECTOR	Detection starts 3 seconds upon power on Turns off power if NG is detected within 200ms
TIMER	TIM	Did power supply frequency fluctuated from: 50Hz → 60Hz 60Hz → 50Hz Number of counts [POWER PWB (PC9001)]	AC	Regularly detects power supply frequency by AC pulse counts and monitors frequency fluctuations other than instances immediately after reset
WITH / WITHOUT SYNC SIGNALS	SYNC	Are there synchronized signals? HD: Color difference synchronized signals M: Main Synchronized signals S: Sub-synchronized signals [IC1211]	SDA	Checks whether there are synchronized signal in video signal
MEMORY	MEM	Is ACK returned during I^2C transmission? [IC1703]	SDA	Monitors upon every I^2C transmission and counts if ACK is not returned
AV SWITCH	AVSW	Same as above [IC1301]	SDA	Same as above
VIDEO CHROMA	VCD	Same as above [IC7301]	SDA	Same as above
AUDIO PROCESSING	AIO	Same as above [IC6501]	SDA	Same as above
3D Y/C SEPARATION	YC	Same as above [IC3001]	SDA	Same as above
RF TUNER	TUN	Same as above [TU1101]	SDA	Same as above
MULTI-SCREEN PROCESSING	PP	Is ACK returned during I^2C transmission?	SDA	Monitors upon every I^2C transmission and counts if ACK is not returned
DIST PROCESSING	IP	Same as above [IC201]	SDA	Same as above
HDMI	HDMI	Not used (Only display)	----	----

• **PAGE 2**

Item	Display	Description of detection	Diagnosis signal (line)	Means of detection
DEFECTIVE AUDIO OUTPUT PART	AP1	Detects short and abnormal temperature in audio circuit. [IC6641]	SDA	Detection starts 3 seconds upon power on. Performs detection every 16ms. If NG lasts for 300ms, audio output part is defective. Controls [/AMP_RST] to [L]→(0.5S)→[H]. Monitors again, and turns off power if the defect is not corrected within 3 seconds.
	AP2	Fault load of audio output part. [IC6641]		
DEVICE DRIVE COLOR MANAGEMENT	DDT	Is ACK returned during I^2C transmission? [IC401]	SDA	Monitors upon every I^2C transmission and counts if ACK is not returned.
A-D CONVERTER	AD	Is ACK returned during I^2C transmission? [IC001]	SDA	Monitors upon every I^2C transmission and counts if ACK is not returned.

5.1.7 DISPLAY METHOD WHEN RASTER IS NOT AVAILABLE

When raster is not displayed due to failure of the set, the POWER LED light will flash to indicate the ailure mode. Trigger for forced shutdown of power is stored and displayed.

Trigger of error	Display	LED flash cycle of display unit
LOW B LINE SHORT PROTECTION	LOB	Blue every 1.0 sec
DEFECTIVE AUDIO OUTPUT PART	AP1	Blue every 0.1 sec
	AP2	Blue every 0.5 sec

Details on Operation

Power of TV will be turned off when NG is detected for LOW B short Protection". "POWER LED" will start flashing immediately after power is turned off and power of tuner and panel cannot be turned on upon shutdown until the AC plugs are disconnected once and reconnected.

JVC SERVICE & ENGINEERING COMPANY OF AMERICA

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SERVICE MANUAL

LCD FLAT TELEVISION

LT-32WX84 /HA

BASIC CHASSIS
SB5

Supplementary

Here is some information related to the exchange of CONTROL PWB in the LCD PANEL UNIT.
For details other than those described in this manual, please refer to the LT-32WX84/HA service manual (No.YA004, 2004/2).

HOW TO DIFFERENTIATE LCD PANEL UNIT

Two types of LCD PANEL UNITS are used in this model. Make sure to confirm the parts No. of LCD PANEL UNIT before exchanging CONTROL PWB. As PARTS No. is not described on the LCD PANEL UNIT, differentiate two types by checking the RATING LABEL(Revision) fixed on the back of the LCD PANEL UNIT.

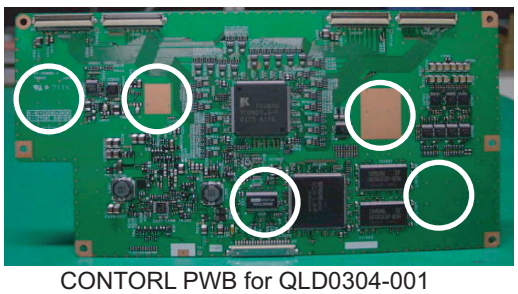
Revision described part

Revision	LCD PANEL UNIT PARTS NO.
C	QLD0304-001
D	QLD0304-002

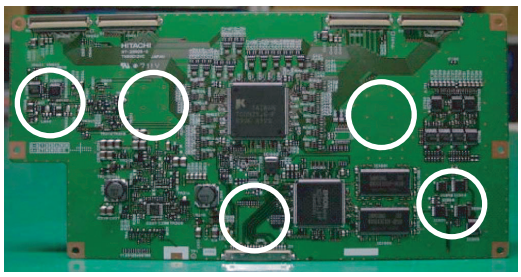
HITACHI
TX80D12VC0CAB
2023H 00001
高 電 圧 注 意
CAUTION HIGH VOLTAGE
USP 5576867 JP 2743293 USP 5598285
JP 2701698
＊ TX80D12VC0CAB 02023S 00001A ＊
COLD CATHODE FLUORESCENT LAMP IN COLOR LCD CONTAINS MERCURY.
PLEASE FOLLOW LOCAL ORDINANCES OR REGULATIONS FOR ITS DISPOSAL.

HOW TO DIFFERENTIATE CONTROL PWB

CONTROL PWB which is to be exchanged differ according to the PARTS No. of the LCD PANEL UNIT.
Two types of CONTROL PWBS can be differentiate by checking the parts as shown as below.



CONTORL PWB for QLD0304-001
(QLD0304-001TCON)



CONTORL PWB for QLD0304-002
(QLD0304-002TCON)

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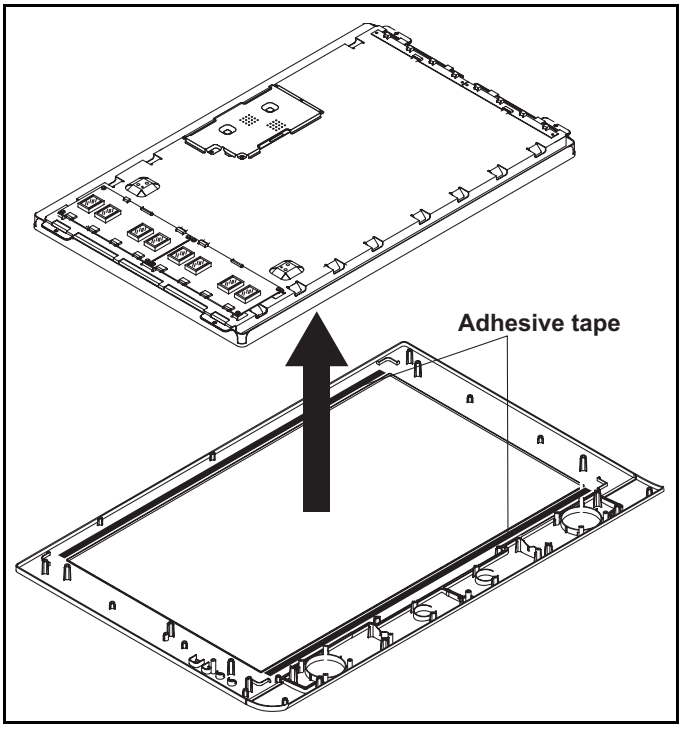
REMOVING THE LCD PANEL UNIT

The LCD PANEL is fixed to the FRONT PANEL (at the back side) by using double-side adhesive tapes. To remove the LCD PANEL UNIT, remove the adhesive tape on the FRONT PANEL slowly.



CHANGING THE CONTROL PWB

CONFIRMATION PRIOR TO DISASSEMBLY

Before disassemble the LCD PANEL UNIT, confirm that there is no damage in the LCD PANEL UNIT (polarizer).

1. DISASSEMBLY OF LCD PANEL

For removing the LCD PANEL UNIT, see page 1-13 "3.1.10 REMOVING THE LCD PANEL UNIT" in LT-32WX84/HA service manual.

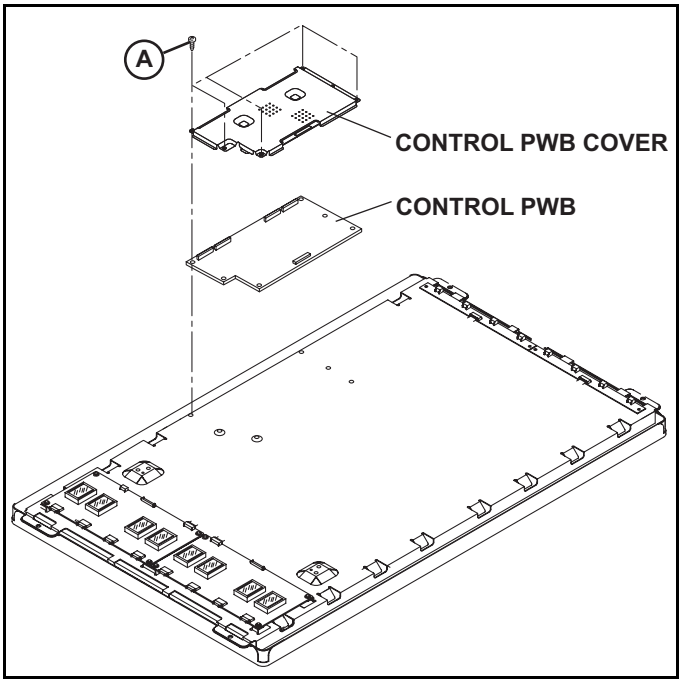
1.1 REMOVING THE CONTROL PWB

- Place the LCD PANEL with its backside facing upward. Be careful not to damage the surface of the screen.
  (1) Remove the 6 screws **[A]**, and remove the CONTROL PWB COVER.
  (2) Remove the claws in the connectors, and pull out to remove the FLEXIBLE WIRE.

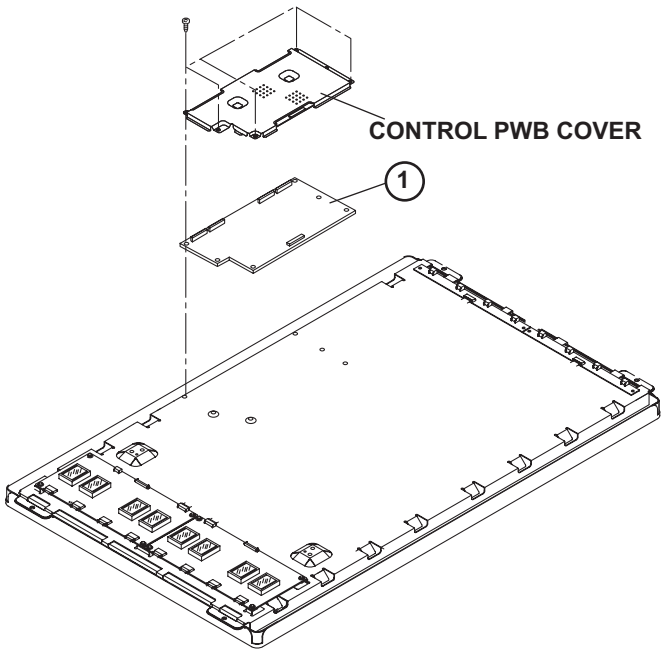
  NOTE:

  Be careful not to damage the FLEXIBLE WIRE. Especially during assembly procedure, be careful not to insert the FLEXIBLE WIRE in the LCD PANEL UNIT.

  (3) Remove the CONTROL PWB.



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

CONTROL PWB which is to be exchanged differ according to the PARTS No. of the LCD PANEL UNIT. Be sure to confirm the PARTS No. of the LCD PANEL UNIT without fail.

⚠	Ref. No.	Part No.	Part name	Description
⚠	1	QLD0304-001TCON	CONTROL PWB	For QLD0304-001
⚠	1	QLD0304-002TCON	CONTROL PWB	For QLD0304-002

* No parts other than a CONTROL PWB are supplied. Exchange the whole unit for other parts repair.

JVC SERVICE & ENGINEERING COMPANY OF AMERICA

DIVISION OF JVC AMERICAS CORP.

www.jvcservice.com(US Only)

JVC CANADA INC.

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JVC®

(No.YA004B)

Printed in Japan
WPC

JVC®

LCD Flat Television Users Guide

For Model:
LT-32WX84

Illustration of LT-32WX84 and RM-C13G

Important Note:

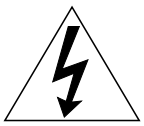
In the spaces below, enter the model and serial number of your television (located at the rear of the television cabinet). Staple your sales receipt or invoice to the inside cover of this guide. Keep this user's guide in a convenient place for future reference. Keep the carton and original packaging for future use.

Model Number: _____

Serial Number: _____

LCT1594-001A
0104TNH-II-VP

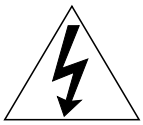
Important Safety Precautions



CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: To reduce the risk of electric shock. Do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS TV SET TO RAIN OR MOISTURE.

CAUTION: TO INSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified on the unit.
2. Avoid damaging the AC plug and power cord.
3. Avoid Improper installation and never position the unit where good ventilation is unattainable.
4. Do not allow objects or liquid into the cabinet openings.
5. In the event of trouble, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

Changes or modifications not approved by JVC could void the warranty.

* When you don’t use this TV set for a long period of time, be sure to disconnect both the power plug from the AC outlet and antenna for your safety.

* To prevent electric shock do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

IMPORTANT RECYCLING INFORMATION

This product has a fluorescent lamp that contains a small amount of mercury. It also contains lead in some components. Disposal of the materials may be regulated in your community due to environmental considerations. For disposal or recycling information, please contact your local authorities, or the Electronic Industries Alliance:

http://www.eiae.org

- As an "ENERGY STAR®" partner, JVC has determined that this product or product model meets the "ENERGY STAR®" guidelines for energy efficiency.

IMPORTANT SAFETY INSTRUCTIONS

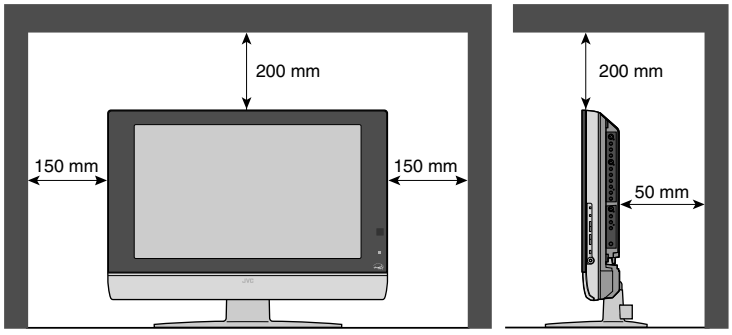
1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15) Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

16) Avoid improper installation and never position the unit where good ventilation is impossible. When installing this TV, distance recommendations must be maintained between the set and the wall, as well as inside a tightly enclosed area or piece of furniture. Keep to the minimum distance guidelines shown for safe operation.



17) Cautions for installation

— Do not tilt the TV towards the left or right, or towards the back.

— Install the TV in a corner on the floor so as to keep cords out of the way.

— The TV will generate a slight amount of heat during operation. Ensure that sufficient space is available around the TV to allow satisfactory cooling.

Warnings

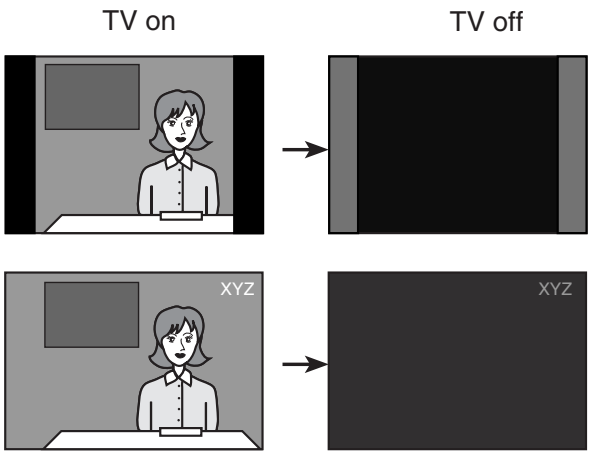
Screen Burn-in

By displaying fixed images for extended periods of time, can leave a subtle but permanent ghost image in your picture. This is referred to as "burn-in". To avoid this, mix your viewing pattern.

Examples include, but are not limited to the following:

- Stock-market report bars
- Shopping channel logos and pricing displays
- Video game patterns or scoreboards
- Bright station logos
- Internet web sites or other computer-style images.
- DVD discs, video tapes, laser discs
- Broadcast, cable, satellite channels or digital television tuners/converters.

For example...



Caring for the Cabinet

Normally, light dusting with a soft, non-scratching duster will keep your TV clean.

If you wish to wipe down the television, first unplug it. Then wipe gently with a soft cloth, slightly moistened with water. You can add a few drops of mild liquid detergent to the water to help remove spots of oily dirt.

- DO NOT allow liquid to enter the TV through the ventilation slots.
- DO NOT use strong or abrasive cleaners on the TV.
- DO NOT spray liquids or cleaners directly on the TV's surface.
- DO NOT rub or scrub the TV harshly. Wipe the set gently with a soft cloth.

Caring for the Screen

The screen is treated with an electrostatic-proof coating. When it gets dirty, wipe it gently with a soft cloth.

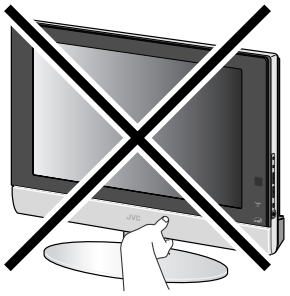
Do not apply alcohol, organic solvents (like acetone), acidic or alkaline cleansers to the screen. These will remove the coating layer and cause discolorations.

Do not push or hit the screen. This could cause scratches on the screen surface and image distortions.

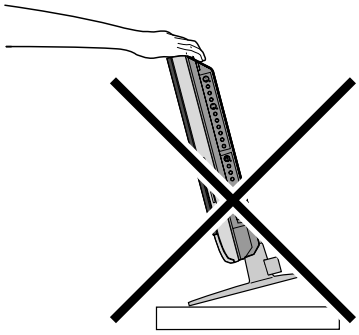
Warnings (Continued...)

How to move the cabinet

Your fingers may become trapped under the TV, causing injuries. Hold the TV at the bottom in the middle, and do not allow the TV to tilt up or down.

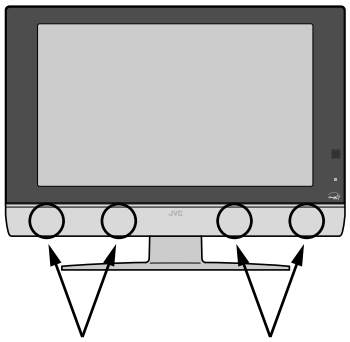


The TV may fall causing injuries. Hold the bottom of the stand with your hand and tilt the TV up or down.



Speaker panel note

Do not press hard on the speaker area at the bottom front panel of the TV .
Doing so can cause a dent to occur on the plastic grid.



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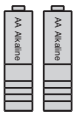
Thank you for your purchase of a JVC LCD Flat Television. Before you begin setting up your new television, please check to make sure you have all of the following items. In addition to this guide, your television box should include:

1 Television

1 Remote Control

Two AA Batteries



Once you have unpacked your television, the next step is to connect it to your antenna/ cable or satellite system and to connect the audio/video devices you want to use with your television. To make these connections you will use plugs like the ones illustrated below.

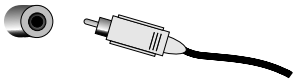
Coaxial Cables

Used to connect an external antenna or cable TV system to your TV.

S-Video Cable

Used to make video connections with S-Video VCRs, Camcorders and DVD players.

Component Cables Composite Cables Audio Cables

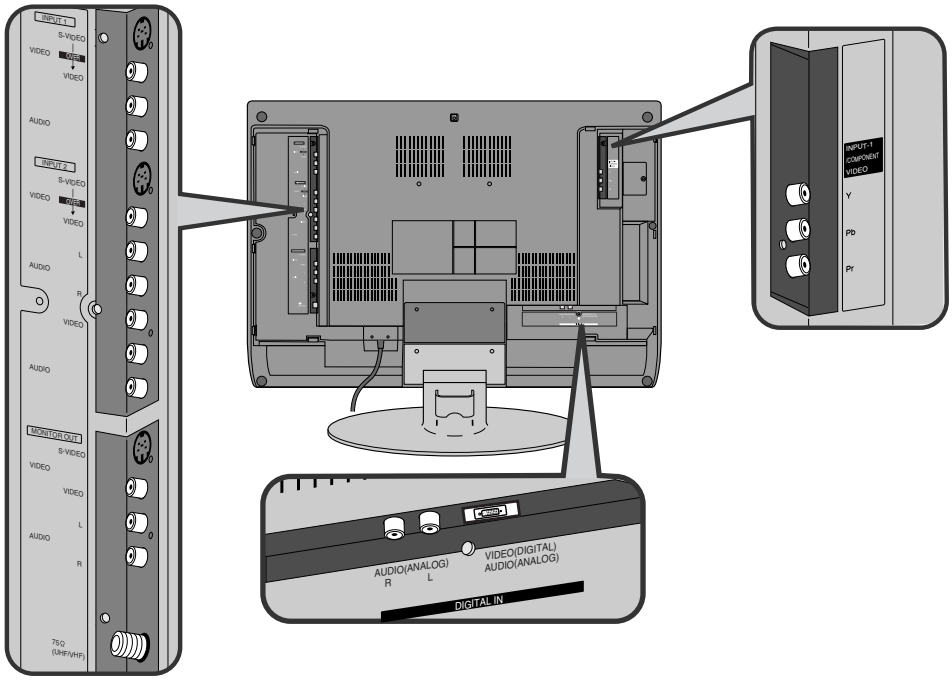


Used to connect audio/ video devices like VCRs, DVD players, stereo amplifiers, game consoles, etc.

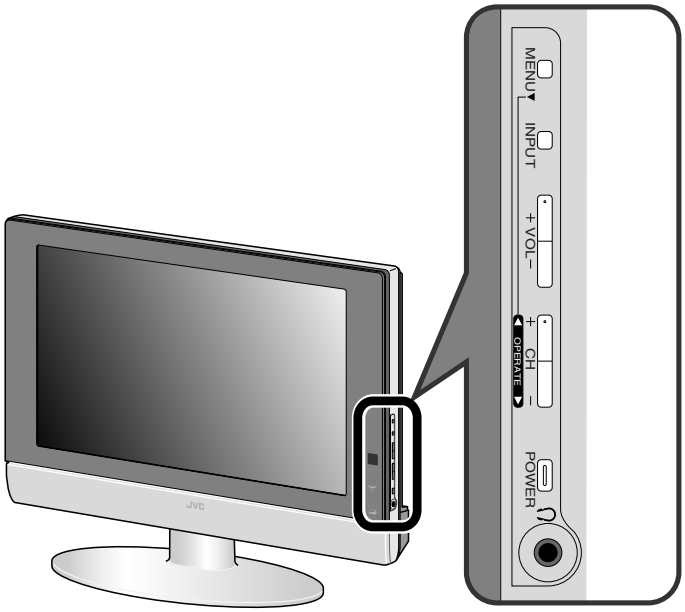
We recommend that before you start using your new television, you read your entire User's Guide so you can learn about your new television's many great features. If you're anxious to start using your television right away, a quick setup guide follows on the next few pages.

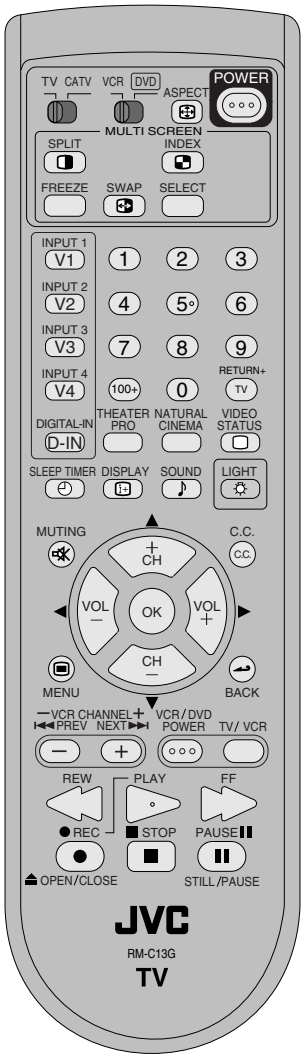
NOTE: Before you connect your television to another device, please refer to the proper diagrams for your specific TV and remote. These will help assist you in understanding how to connect your television to another device, as well as use the remote to set up your television.

Rear Panel Diagram



Side Panel Diagram





RM-C13G

Notes:

- This television model has three video inputs, therefore the INPUT 4 (V4) button on your remote control will have no effect.
- For information on remote control buttons, see pages 47 - 55.

Getting Started

These quick setup pages will provide you, in three easy steps, with the basic information you need to begin using your new television right away.

If you have questions, or for more detailed information on any of these steps, please consult other sections of this manual.

Step 1 - Using the stand

This TV comes with a Table Top Stand already attached.

This stand can be used to adjust the direction of the TV screen 5° up, 10° down and 20° to the left or right.

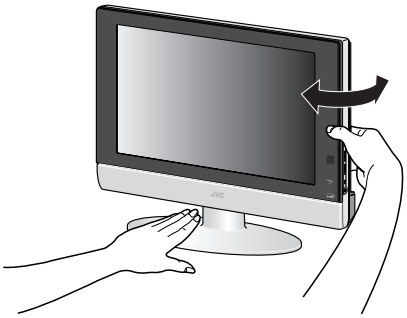
Tilt the TV up or down

While holding the bottom of the stand with one hand, use your other hand to hold the middle of the top of the TV, and slowly tilt the TV up or down.

- As a safety measure, the stand is constructed so that it requires a certain amount of force to tilt the TV.

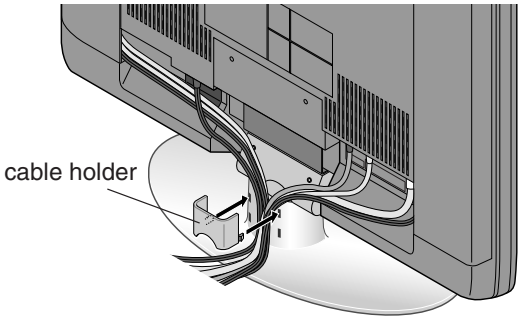
Rotate the TV left or right

While holding the bottom of the stand with one hand, use your other hand to hold the edge of the panel and slowly adjust the direction of the TV stand.



Cable Holder

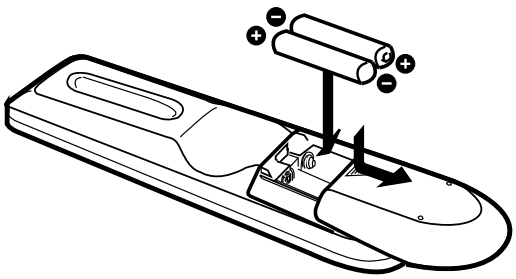
A cable holder which keeps your connection cables tidy is attached on the back of the stand. Gently squeeze the left and right of the cable holder, and pull it to remove it from the stand. After putting the cables in the cable holder, attach it to the back of the stand again.



Step 2 – The Remote Control

Before you can operate your remote control, you first need to install the batteries (included).

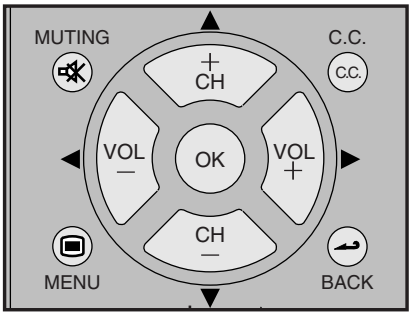
Slide the cover on the back of the remote down towards the bottom of the remote control. Insert two batteries (included) carefully noting the "+" and "–" markings, placing the "–" end in the unit first. Slide the cover back into place.



When you change the batteries, try to complete the task within three minutes. If you take longer than three minutes, the remote control codes for your VCR, DVD, and/or cable box/satellite receiver may have to be reset. See pages 23 - 26.

Key Feature Buttons

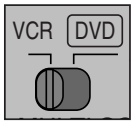
The four key feature buttons at the center of the remote can be used for basic operation of the television. The top and bottom buttons will scan forward and back through the available channels. To move rapidly through the channels using JVC's **Hyperscan** feature, press and hold CH+ or CH–. The channels will zip by at a rate of five channels per second. The right and left buttons will turn the volume up or down. These buttons are also marked with four arrows and are used with JVC's onscreen menu system. To use the onscreen menus, press the MENU button.



Basic Operation

Turn the television on and off by pressing the POWER button at the top right corner of the remote. If this is the first time you are turning on the TV, the interactive plug-in menu appears.

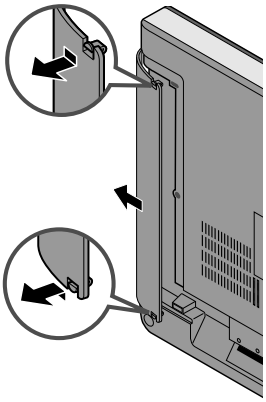
- Make sure the TV/CATV switch is set to TV. Move the switch to CATV only if you need to operate a cable box.
- Slide the VCR/DVD selector switch to VCR to control a VCR. Slide to DVD to control a DVD player. Please see pages 23 to 26 for instructions on programming your remote control to operate a cable box, VCR or DVD player.



Step 3 - Connecting your devices

Remove the terminal cover

There are connection terminals behind the covers on the left and right in the back of the TV. Remove these two covers before connecting an antenna or other devices. The covers can be removed by removing the hooks. When replacing the covers, place the side of the covers against the TV and insert the hooks.



Note:

- Leave the terminal covers off if they do not fit properly. Do not force to replace the covers. Doing so may damage the connection cables and covers.

Connections

Please follow the flow chart below to determine which connection setup is right for you. Then, refer to the appropriate diagrams to connect your television to other devices that you may have. After you are finished connecting your devices, plug the power cord into the nearest power outlet and turn on the TV.

A VCR is not necessary for operation of the television. If you follow these diagrams and the television does not work properly, contact your local cable operator.

- To connect a DVD player, see **Diagram #3**. A DVD player is optional.
- If you have a satellite television system, please refer to the satellite TV manual.

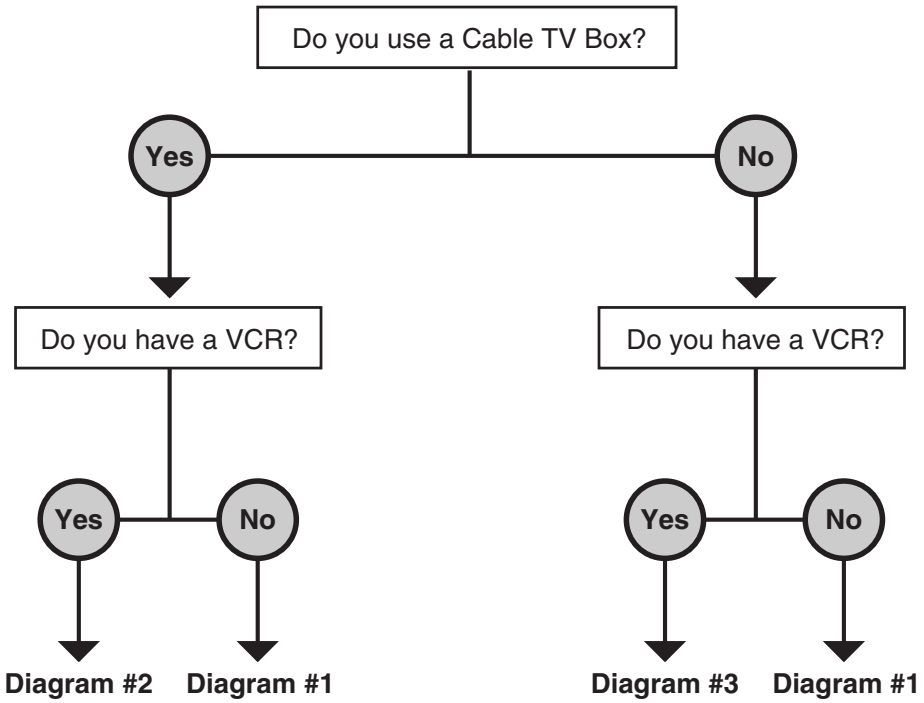
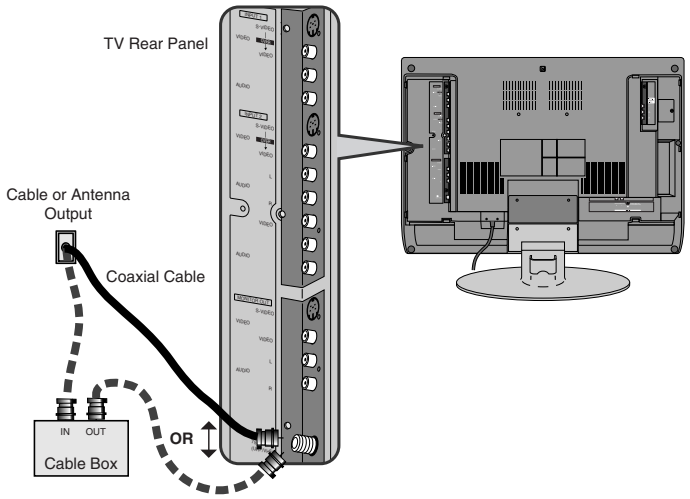


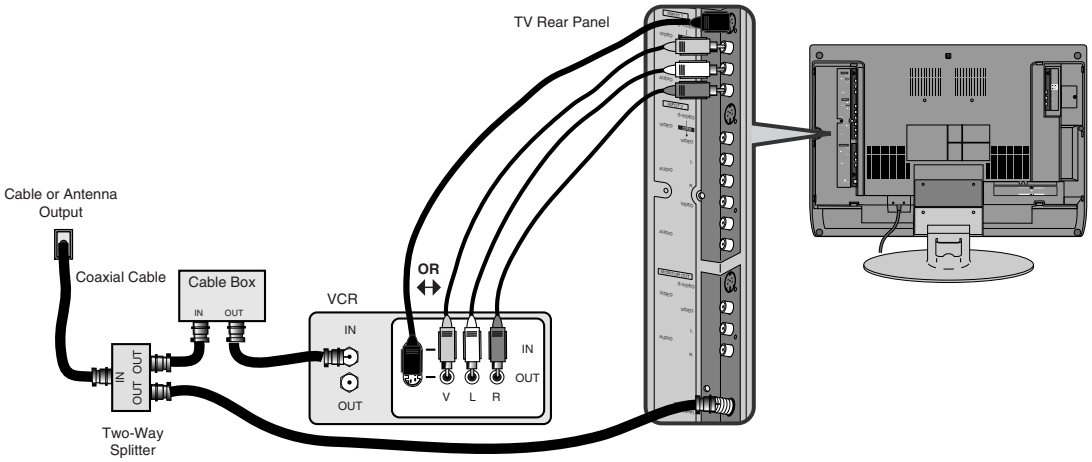
Diagram #1



Note:

- If you do not have a cable box, connect the cable wire from the wall outlet into the back of the TV.

Diagram #2



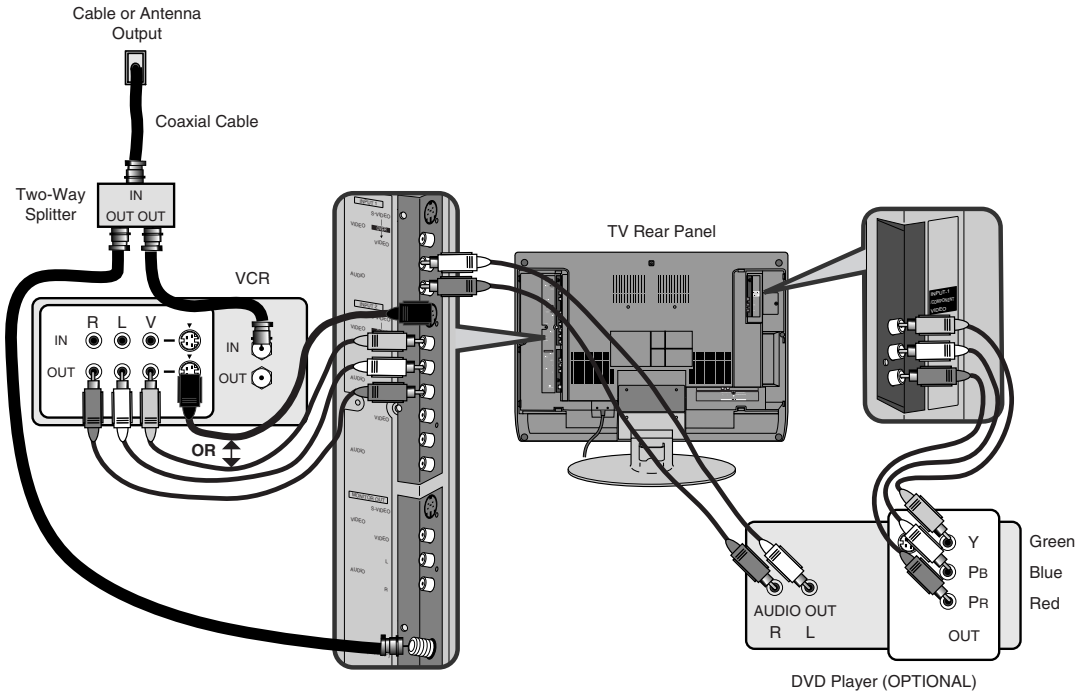
Notes:

- If your VCR is a mono sound unit, it will have only one audio out jack. Connect it to the LEFT AUDIO INPUT on the rear of the TV.
- Use the S-Video connection if possible for superior picture quality.
- Your VCR must be turned on to view premium cable channels.

Notes:

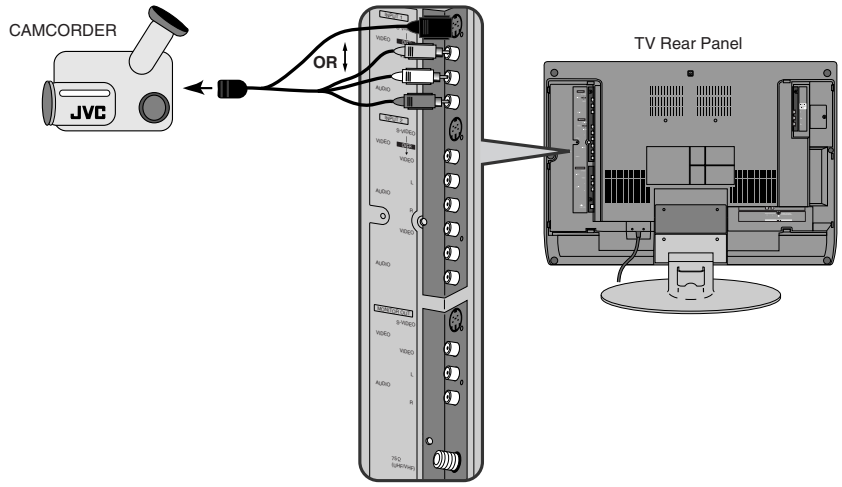
- Green, blue and red are the most common colors for DVD cables. Some models may vary colors. Please consult the user's manual for your DVD player for more information.
- Be careful not to confuse the red DVD cable with the red audio cable. It is best to complete one set of connections (DVD or audio output) before starting the other to avoid accidentally switching the cables.
- You may also connect the DVD player to Input 1.

Diagram #3



Connecting to a Camcorder

You can connect a camcorder to you televison by using the input jacks located on the back of the television.



1) Connect a yellow composite cable from the camcorder VIDEO OUT, into the VIDEO IN on the back of the TV, **OR** connect an S-Video cable from the camcorder to the back of the TV.
2) Connect a white cable from the camcorder LEFT AUDIO OUT, into the LEFT AUDIO IN on the back of the TV.
3) Connect a red cable from the camcorder RIGHT AUDIO OUT, into the RIGHT AUDIO IN on the back of the TV.

Note:

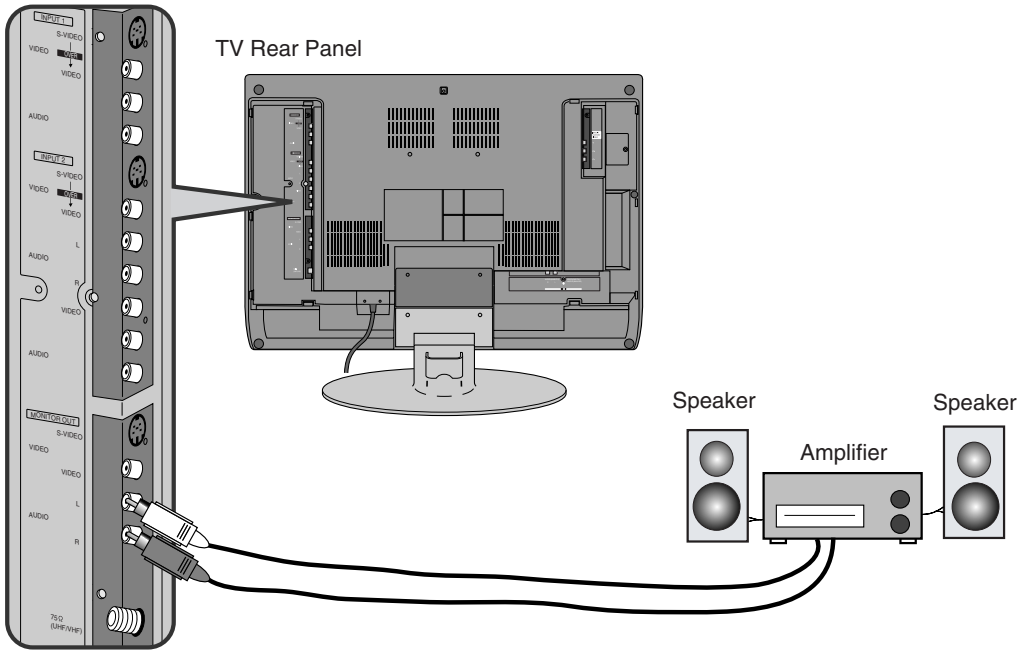
- If your camcorder is a mono sound model it will have only one AUDIO OUT. Connect it to the LEFT AUDIO IN on the back of the TV.

Headphone Connection

You can connect a pair of headphones to the television using the headphone jack located on the side of the television.

1) Plug a headphone jack into the headphone jack on the television's side panel.

Connecting to an External Amplifier



1) Connect a white cable from the LEFT AUDIO OUTPUT on the back of the TV to the LEFT AUDIO INPUT on the amplifier.
2) Connect a red cable from the RIGHT AUDIO OUTPUT on the back of the TV to the RIGHT AUDIO INPUT on the amplifier.

Notes:

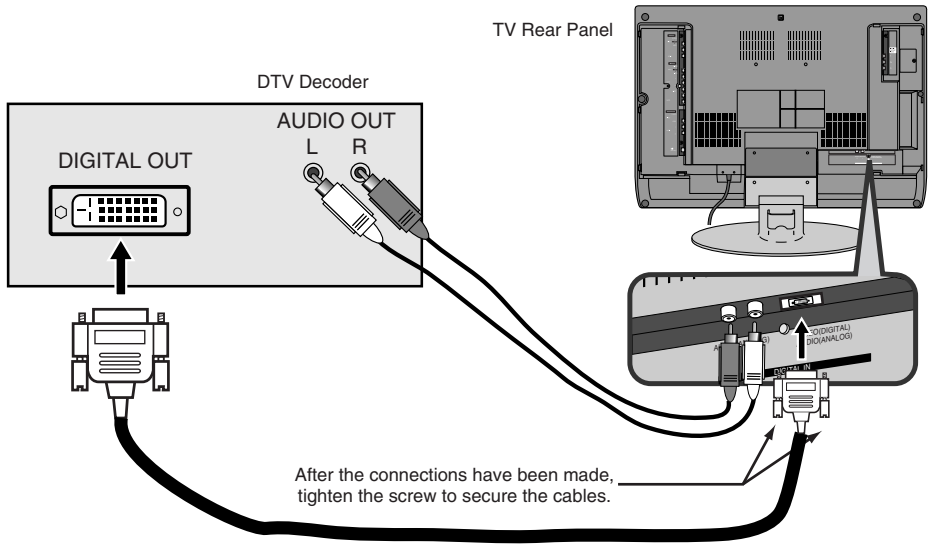
- Refer to your amplifier's manual for more information.
- You can use AUDIO OUTPUT for your home theater system.

For the VIDEO OUTPUT and S-VIDEO OUTPUT

- No signal will output through the S-VIDEO OUTPUT when you are not viewing images coming from the S-VIDEO INPUT. In this case, use the VIDEO OUTPUT instead of the S-VIDEO OUTPUT.
- No signal will output through the VIDEO OUTPUT or S-VIDEO OUTPUT when you are viewing images coming from the VIDEO-1/COMPONENT VIDEO.

Connecting to a Digital TV Receiver w/HDCP

By inputting a high bandwidth digital content protection high definition picture source to the digital-in terminal of this television, high-definition pictures can be displayed on the screen in their digital form. (This terminal is for use in the future when high bandwidth digital content protection DTV decoders and DVD players and D-VHS are put on the market.)


TV Rear Panel
DTV Decoder
AUDIO OUT
L R
DIGITAL OUT
After the connections have been made, tighten the screw to secure the cables.

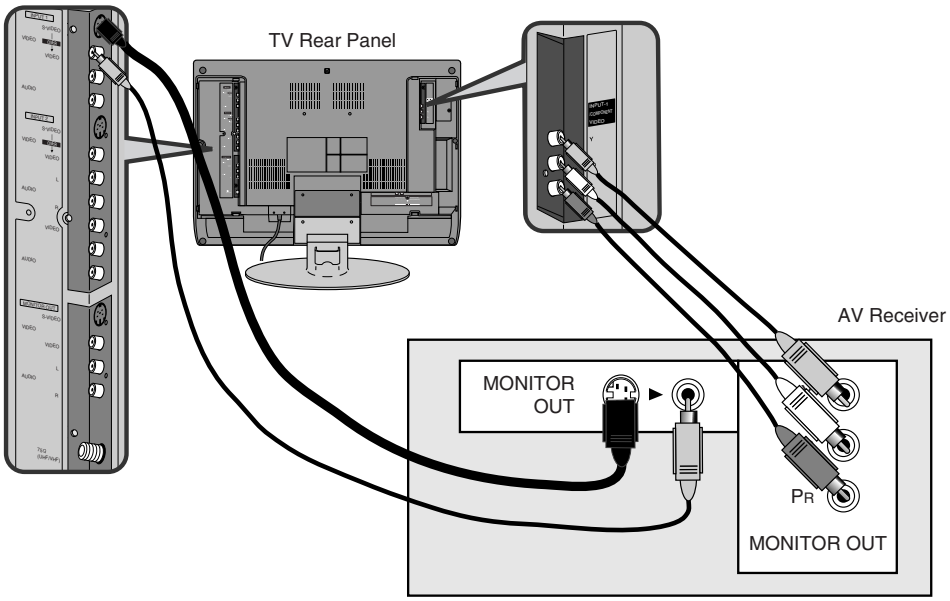
1) Connect the DTV DIGITAL RGB OUTPUT TERMINAL to the DIGITAL INPUT TERMINAL of the television, and then tighten the 2 screws.
2) Connect the DTV decoder LEFT AUDIO OUTPUT to the DIGITAL-IN LEFT AUDIO INPUT.
3) Connect the DTV decoder RIGHT AUDIO OUTPUT to the DIGITAL-IN RIGHT AUDIO INPUT.

- The Digital-In terminal can only be used with 1080i, 720p and 480p picture signals. Set the DTV decode digital-out terminal output setting to 1080i, 720p or 480p. For detailed information, refer to the DTV decoder instruction manual. If you can not display the picture because your DTV decoder does not have a digital-out terminal output setting, use the component video input (or the S-Video input or video input). Refer to page 15. In this case the picture will be displayed as an analog signal.
- The digital-in terminal is not compatible with the picture signal of a personal computer.
- Use a DVI-D single link 19-pin cable (commercially available) in order to digitally connect the television with a DTV decoder.

If 480p signals (640x480 or 720x480) are displayed on the screen, the horizontal balance may be slightly shifted. In cases such as this, the horizontal balance can be adjusted by accessing “DIGITAL-IN” in the INITIAL SETUP menu. (Refer to page 41.)

Connecting to an AV Receiver using your television's V1 Smart Input

By connecting your AV Receiver to your television's V1 Smart Input, you can watch picture sources from many different devices, without having to change or use the other input connections on your TV. This allows you to free up the other input connections so you can connect more devices to your television.



1) Connect an S-Video Cable from the AV Receiver's MONITOR OUT, to the S-Video INPUT-1 on the back of your television.
2) Connect a Yellow Composite Cable from the AV Receiver's MONITOR OUT, into the VIDEO INPUT-1 on the back of your television.
3) Connect a Green Component Cable from the AV Receiver's Y MONITOR OUT, into the Y VIDEO INPUT-1 on the back of your television.
4) Connect a Blue Component Cable from the AV Receiver's PB MONITOR OUT, into the Pb VIDEO INPUT-1 on the back of your television.
5) Connect a Red Component Cable from the AV Receiver's PR MONITOR OUT, into the Pr VIDEO INPUT-1 on the back of your television.

Notes:

- Please refer to your AV Receiver instruction manual for more information on connecting your speakers and other devices like a DVD player.
- Use your AV Receiver's remote to switch to the different devices you have connected.
- Some AV Receivers may not respond when the V1 Smart Input function is turned on.
- If you have video connections for each input device connected to your AV Receiver, you should not connect them using both S-Video and Composite connection at the same time when you are using V1 Input as the V1 Smart Input. In this case we recommend using the S-Video connection.

Step 4 – The Interactive Plug In Menu

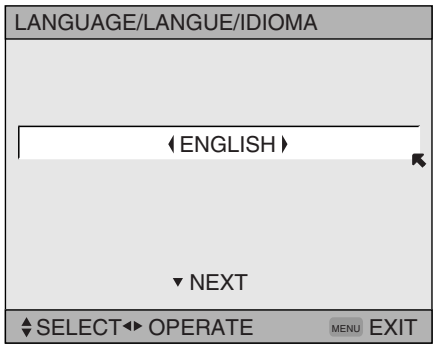
When you turn your television on for the first time the interactive plug-in menu will appear. The plug-in menu helps you to get your TV ready to use by letting you set your preferences for:

- The language in which you want the onscreen menus to appear.
- Setting the TV's clock to the correct time so your timer functions will work properly. You can choose "AUTO" or "MANUAL" for setting the clock.
- The auto tuner setup of which channels you wish to receive.

We recommend you complete the interactive plug-in items before you start using your television.

Language

After the "JVC INTERACTIVE PLUG IN MENU" has been displayed, the TV automatically switches to the LANGUAGE settings. You can choose to view your onscreen menus in three languages: English, French (Français) or Spanish (Español).



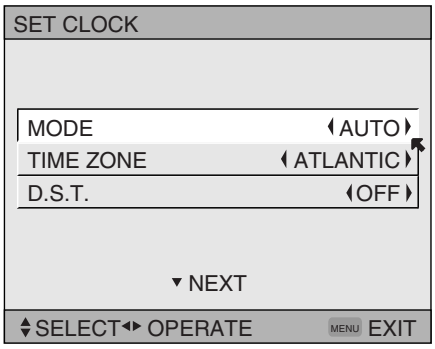
◀▶ To choose a language:
(English, Français or Español)

▼ To NEXT (To set clock)

(To be continued...)

Auto Clock Set

Before you use any of your TV's timer functions, you must first set the clock. You may precisely set your clock using the XDS time signal broadcast by most public broadcasting stations. If you do not have this in your area, you will have to set the clock manually. See manual clock set below. To set the clock using the XDS signal:



◀▶ To choose AUTO

▼ To TIME ZONE

◀▶ To select your time zone: (Atlantic, Eastern, Central, Mountain, Pacific, Alaska or Hawaii)

▼ To move to D.S.T. (Daylight Savings Time)

◀▶ To turn D.S.T. ON or OFF

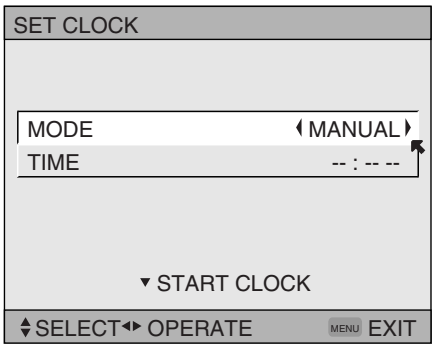
▼ To NEXT (To Auto Tuner Setup)

Notes:

- The Daylight Savings Time feature automatically adjusts your TV's clock for Daylight Savings. The clock will move forward one hour at 2:00 am on the first Sunday in April. The clock will move back one hour at 2:00 am on the last Sunday in October.
- You will have to reset the clock after a power interruption. You must set the clock before operating any timer functions.

Manual Clock Set

To set your clock manually (without using the XDS signal), choose MANUAL. If you choose AUTO, see auto clock set above.



◀▶ To choose MANUAL

▼ To TIME

◀▶ To set the hour

▼ To minute

◀▶ To set the minute

▼ To Start Clock

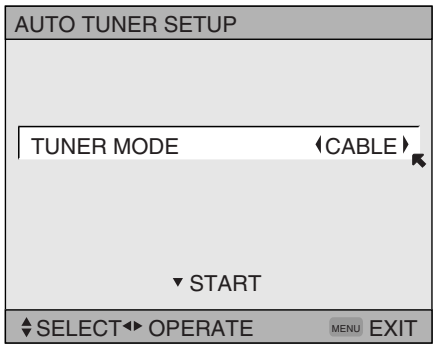
Note:

- You will have to reset the clock after a power interruption. You must set the clock before operating any timer functions.

(To be continued...)

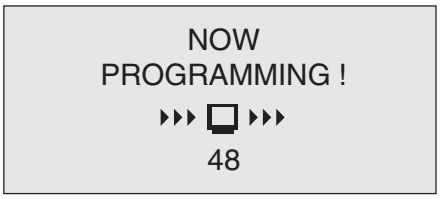
Auto Tuner Setup

In auto tuner setup, the TV automatically scans through all available channels, memorizing the active ones and skipping over blank ones or channels with weak signals. This means when you scan (using the CHANNEL +/– buttons) you will receive only clear, active channels.



◀▶ To choose CABLE or AIR (or SKIP when you skip Auto Tuner Setup)

▼ To START



Programming will take approximately 1 to 2 minutes.

When the setup is finished, THANK YOU!! SETUP IS NOW COMPLETE is displayed. Your quick setup is now complete. You can now begin watching your television, or you can continue on in this guide for more information on programming your remote control, or using the JVC onscreen menu system to customize your television viewing experience.

Notes:

- Noise muting will not work during Auto Tuner Setup.
- Skip appears only for interactive plug-in menu.
- The interactive plug-in menu setting does not appear if your TV has been turned on before. In this case, use the menu to perform these settings. See pages 38, 45 and 30.

Cable Box and Satellite Users: After your auto tuner setup is complete, you may, (depending on the type of hookup), have only 1 channel, usually 3 or 4 in the auto tuner memory. This is normal.

The Quick Setup is complete

Remote Programming

Setting the CATV, VCR and DVD Codes

You can program your remote to operate your cable box, satellite receiver, VCR or DVD player by using the instructions and codes listed below. If the equipment does not respond to any of the codes listed below or to the code search function, use the remote control supplied by the manufacturer.

Cable Box or Satellite Codes

The remote control is programmed with cable box and satellite codes for power on/off, channel up/down, and 10 key operation.

1) Find the cable box or satellite brand from the list of codes shown below.
2) Slide the 2-way selector switch to “CATV”.
3) Press and hold down the DISPLAY button, then enter the first code number listed with the 10 key pad.
4) Release the DISPLAY button, and confirm the operation of the cable box/satellite receiver.

- If your cable or satellite box does not respond to the first code, try the others listed. If it does not respond to any code, try the search codes function, on page 26.

Cable Box	Codes
ABC	024
Archer	032, 025
Cableview	051, 032
Citizen	022, 051
Curtis	058, 059
Diamond	024, 032, 025
Eagle	029
Eastern	034
GC Brand	032, 051
Gemini	022, 043
General Instrument/Jerrold	065, 024, 025, 026, 027, 020, 021, 022, 057, 023, 072, 074
Hamlin	040, 041, 042, 045, 058, 064
Hitachi	049, 024
Macom	049, 050, 051, 054
Magnavox	033
Memorex	030
Movietime	032, 051
Oak	039, 037, 048
Panasonic	055, 056, 060, 071, 073
Paragon	063
Philips	028, 029, 030, 052, 053, 031, 069
Pioneer	047, 062
Pulsar	051, 032

Cable Box	Codes
Puser	032
RCA	061, 070
Realistic	032
Regal	058, 064, 040, 041, 042, 045, 068
Regency	034
Rembrandt	037, 032, 051, 038
Samsung	051
Scientific Atlanta	057, 058, 059
SLMark	051, 047
Sprucer	051, 056
Stargate	032, 051
Telecaption	067
Teleview	047, 051
Texscan	044
Tocom	035, 036, 066, 074
Toshiba	050, 048
Unika	032, 025
Universal	022, 032
Videoway	052
Viewstar	029, 030
Zenith	063, 046
Zenith/Drake Satellite	046

Digital Satellite Systems	Codes
Echostar (Dish Network)	100, 113, 114, 115
Express VU	100, 113
G.E.	106
G.I.	108, 120, 121, 122
Gradiente	112
Hitachi	104, 111
HNS (Hughes)	104
Magnavox	102, 103
Panasonic	105
Philips	102, 103, 116
Primestar	108
Proscan	106, 109, 110
RCA	106, 109, 110
Sony	107
Star Choice	104, 108
Toshiba	101, 104, 117, 118, 119
Uniden	102, 103

Remote Programming

VCR Codes

The remote control is programmed with VCR codes for power on/off, play, stop, fast-forward, rewind, pause, record, channel up/down operation.

1) Find the VCR brand from the list of codes shown below.
2) Slide the first 2-way selector switch to “TV” and the other 2-way selector switch to “VCR”.
3) Press and hold down the DISPLAY button, then enter the first code number listed with the 10 key pad.
4) Release the DISPLAY button, and confirm the operation of the VCR.

- If your VCR does not respond to the first code, try the others listed. If it does not respond to any of the codes, try the search codes function on page 26.
- After you program your remote, some VCR buttons may not work properly. If so, use the VCR’s remote.
- To record, hold down the REC button on the remote and press PLAY.

VCR	Codes
Admiral	035
Aiwa	027, 032, 095
Akai	029, 072, 073, 074
Audio Dynamic	003, 005
Bell & Howell	063, 071
Broksonic	020, 026, 094
Canon	023, 025
CCE	043
Citizen	064
Craig	063, 029, 064
Curtis Mathes	045, 024, 027, 093
Daewoo	043, 059, 024, 092
DBX	003, 004, 005
Dimensia	045, 093
Emerson	043, 026, 077, 061, 025, 042, 020, 076
Fisher	063, 066, 067, 065, 071, 091
Funai	027, 026, 020, 000
G.E.	033, 045, 024
Go Video	037, 051, 049, 050, 089
Goldstar	064
Gradiente	083, 084, 081, 000, 001
Hitachi	023, 045, 058, 093, 027, 081
Instant Replay	024, 023
Jensen	003
JVC	003, 004, 005, 000, 001, 002, 006, 007
Kenwood	003, 004, 064, 005
LG	064
LXI	027, 064, 058, 065, 066, 063, 067
Magnavox	031, 023, 024, 086
Marantz	003, 004, 005
Marta	064
Memorex	024, 067
MGA	038, 040, 047, 048, 041, 042
Minolta	058, 045, 093
Mitsubishi	038, 040, 047, 048, 041, 042, 078, 090
Multitech	047, 027, 062
NEC	003, 004, 005, 000
Olympic	024, 023
Optimus	028, 021, 035, 064
Orion	026, 020
Panasonic	023, 024, 021, 022
Penney	024, 058, 045, 063, 003, 004, 005, 093
Pentax	058, 005, 045, 093
Philco	031, 024, 027, 023, 026, 020, 043
Philips	031, 023, 024, 086
Pioneer	023
Proscan	045, 058, 023, 024, 031, 046, 059, 060, 093, 033, 087
Quasar	021, 022, 023, 024
Radio Shack	033, 024, 063, 036, 067, 040, 027
RCA	033, 045, 058, 023, 024, 031, 046, 059, 060, 083, 084, 085, 087, 093, 096
Realistic	024, 063, 036, 067, 040, 027
Samsung	037, 060, 062, 033, 089
Samtron	089
Sansui	003, 026, 020, 052
Sanyo	063, 067, 091, 071
Scott	059, 060, 062, 067, 038, 040, 047, 048, 026, 020
Sears	063, 064, 065, 066, 058
Sharp	035, 036, 080, 088
Shintom	075
Signature 2000	027, 035
Singer	075
Sony	028, 029, 030, 053, 054, 055
SV 2000	027
Sylvania	031, 023, 024, 027
Symphonic	027, 081
Tashiro	064
Tatung	003, 004, 005
Teac	003, 004, 027, 005
Technics	021, 022, 023, 024
Teknika	024, 027, 070
Thomson	033, 096
Toshiba	059, 046, 079
Vector Research	005
Wards	035, 036, 067, 044, 064
Yamaha	063, 003, 004, 005
Zenith	044, 082, 064, 094

Remote Programming

DVD Codes

The remote control is programmed with DVD codes for power on/off, play, stop, fast-forward, rewind, previous/next chapter, tray open/close, and still/pause operation.

1) Find the DVD player brand from the list of codes shown below.
2) Slide the first 2-way selector switch to “TV” and the other 2-way selector switch to “DVD”.
3) Press and hold down the DISPLAY button, then enter the first code number listed with the 10 key pad.
4) Release the DISPLAY button, and confirm the operation of the DVD player.

- If your DVD player does not respond to the first code, try the others listed. If it does not respond to any of the codes, try the search codes function on page 26.
- After you program your remote, some DVD buttons may not work properly. If so, use the DVD player’s remote.

DVD Player	Codes	DVD Player	Codes	DVD Player	Codes
Aiwa	043	Mintek	057	Sharp	028
Apex	040, 054, 055	Mitsubishi	025	Silvania	038
Bose	058	Next Base	056	SMC	048
Denon	020, 037	Onkyo	041, 052	Sony	024, 045, 046, 047
Funai	038	Oritron	044	Technics	020
Go–Video	032	Panasonic	020	Thomson	021
Harman Kardon	053	Philips	023, 036	Toshiba	023
Hitachi	031	Pioneer	022	Venturer	051
JVC	000	Polk Audio	036	Vialta	050
Kenwood	035, 020	Raite	033	Wave	042
KLH	051	RCA	021, 026	Yamaha	020, 049
Konka	039	Sampo	034	Zenith	027, 032
Koss	050	Samsung	030		

Remote Programming

Search Codes

Cable/Satellite Search Codes Function

1) Slide the first 2-Way Mode Selector switch to CATV.
2) Press and hold down the POWER button, then press the RETURN+/TV button for more than three seconds.
3) Release the RETURN+/TV button, then release the POWER button.
4) Press the POWER button on the remote, and see if the cable or satellite box responds.
5) If there was a response, press RETURN+/TV. The codes are now set. If there was no response, repeat Step 4. If you repeat Step 4 a total of 80 times without a response, use the remote control that came with your equipment.
6) Press RETURN+/TV to exit.

VCR/DVD Search Codes Function

1) Slide the first 2-way selector switch to “TV” and the other 2-way selector switch to “VCR” or “DVD”.
2) Press and hold down the VCR or DVD POWER button, then press the RETURN+/TV button for more than three seconds.
3) Release the RETURN+/TV button, then release the VCR or DVD POWER button.
4) Press the VCR or DVD POWER button, and see if the VCR or DVD responds.
5) If there was a response, press RETURN+/TV. The codes are now set. If there was no response, repeat Step 4. If you repeat Step 4 a total of 80 times for the VCR (40 times for the DVD player), and there is no response, use the remote control that came with your equipment.
6) Press RETURN+/TV to exit.

Onscreen Menus

Using the Guide

Certain symbols are used throughout this guide to help you learn about the features of your new television. The ones you will see most frequently are:

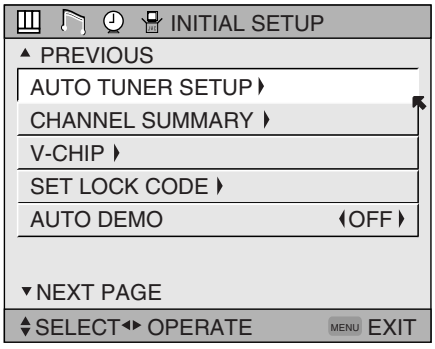
▲▼ Up and Down arrows mean press the CH+ or CH– buttons. Pressing the CH+ or CH– buttons let you:
- Move vertically in a main menu screen
- Move through a submenu screen
- Move to the next letter, number, or other choice in a submenu
- Back up to correct an error
- Scan through TV channels (when not in a menu screen)

◀▶ Left and right arrows mean press the VOLUME+ or VOLUME– buttons to move left or right to:
- Select a highlighted menu item
- Select an item in a submenu
- Select numbers in certain menu options
- Turn the volume up or down (when not in a menu screen)

The "press button" icon means you should press the button named on your remote control. (Button names appear in SMALL CAPITAL LETTERS.)

The "helping arrow" icon points to the highlighted or selected item in a menu.

To bring up the onscreen menu, press the MENU button on the remote control. The item that appears in green is the one currently selected. If you use the Menu button on the TV's front panel instead of the remote, an additional menu screen showing INPUT and ASPECT will appear between INITIAL SETUP and PICTURE ADJUST. The "interactive plug-in menu" will appear the first time the TV is plugged in.



Note:

- Menus shown in this book are illustrations, not exact replications of the television's onscreen displays.

Onscreen Menus

The Onscreen Menu System

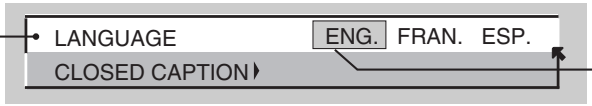
Your television comes with JVC's onscreen menu system. The onscreen menus let you make adjustments to your television's operation simply and quickly. Examples of the onscreen menus are shown on the next page. Detailed explanations on using each menu follow later in this guide. For information about the interactive plug-in Menu, see pages 20 - 22.

The Onscreen Menu System

To open the onscreen menu system, press the MENU button on the remote control. You navigate within the onscreen menus by using the four directional arrow buttons on the remote control. (These buttons are also the CH +/– and VOL +/– buttons. Channel and volume functions will not operate when the onscreen menu is active).

The selected feature and option on a menu screen are highlighted in a different color.

Selected Option (Green)



Selected Option (Blue)

To move to a different feature use the ▲▼ arrows to move up or down the list. When you press the up arrow at the top of the list or the down arrow at the bottom, the next menu screen will appear. Use the arrows ◄ ► to select an option from the highlighted feature. Pressing MENU on the remote control will close the onscreen menu system and return you to normal television viewing.

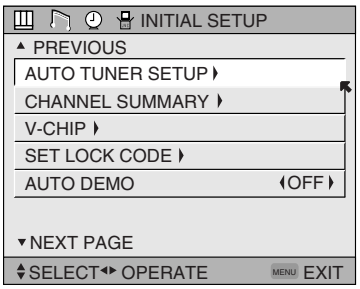
Each menu and its features will be discussed in the following pages of this guide.

Notes:

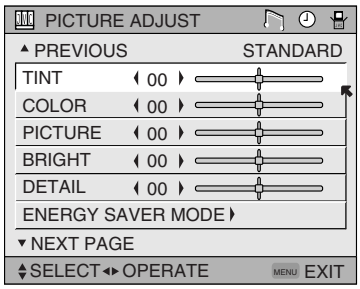
- If you do not press any buttons for a few seconds, the onscreen menu will automatically shut off.
- Button names in this guide are shown in SMALL CAPITAL LETTERS.
- Menus may appear in different sizes onscreen depending on the aspect ratio selected.
- Some menu items may not appear in menu screens when certain aspect ratios or inputs are selected.

Onscreen Menus

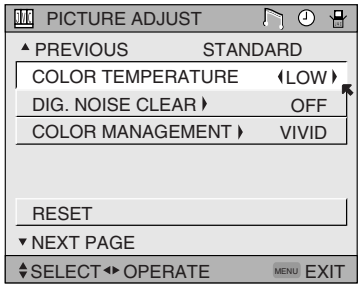
Press the MENU button



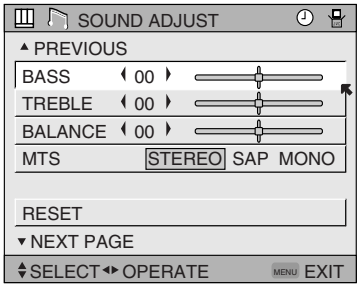
INITIAL SETUP 04



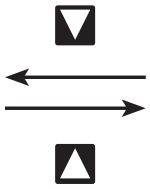
PICTURE ADJUST 01



PICTURE ADJUST 02

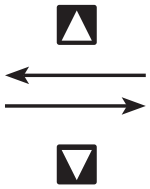


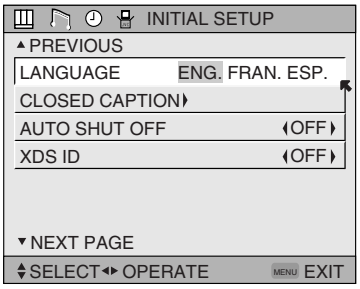
SOUND ADJUST



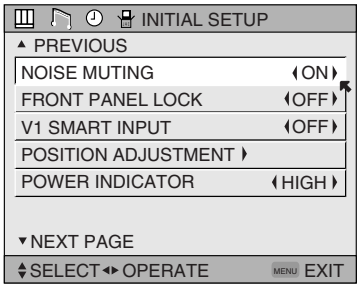
Notes:

- The DIGITAL-IN menu can only be displayed when a 480p picture signal is input to the digital-in terminal and the picture is being displayed on the screen.
- When the Menu button on the TV front panel is pressed, the FRONT PANEL CONTROL menu between INITIAL SETUP 04 and PICTURE ADJUST 01 will appear.

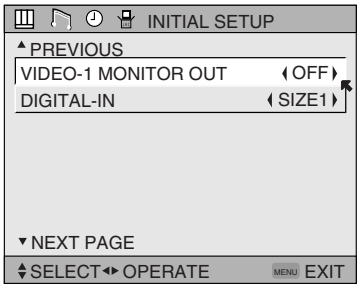




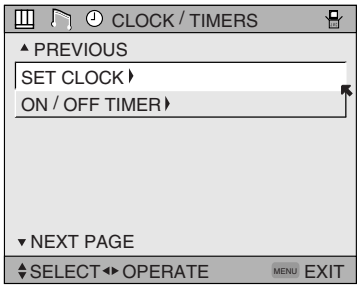
INITIAL SETUP 03



INITIAL SETUP 02



INITIAL SETUP 01



CLOCK/TIMERS

Initial Setup

Auto Tuner Setup

The auto tuner setup function is described on page 22 as the interactive plug-in menu. If you need to run the auto tuner setup again, follow the steps below.

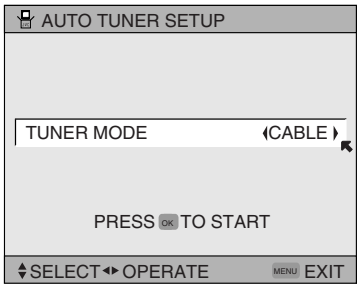
Press the MENU button

▲▼ To AUTO TUNER SETUP

◀▶ To operate

◀▶ To choose CABLE or AIR

Press the OK button to start



Programming will take approximately 1 to 2 minutes. The auto tuner is finished when the message **PROGRAMMING OVER!** appears onscreen.

Press the Menu button when finished

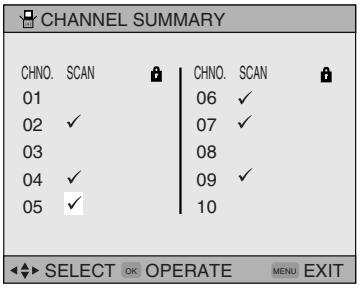
Channel Summary

Channel summary allows you to customize the line-up of channels received by your TV. You can add or delete channels from the line-up or prevent any unauthorized viewers from watching any or all 181 channels.

Press the MENU button

▲▼ To CHANNEL SUMMARY

◀▶ To operate



The Channel summary screen will now be displayed with the channels set to scan marked with an "√". You can delete channels from the scan by removing the "√". If any channels were missed during auto tuner setup and you wish to add them, you may by placing an "√" next to the channel number.

▲▼◀▶ To the SCAN column

Press the OK button to include or delete from scan

Press the MENU button when finished

You can block access to a channel by activating the channel lock.

Press the MENU button

▲▼ To CHANNEL SUMMARY

◀▶ To operate

▲▼◀▶ To the Lock Column (🔒)

Press the ZERO button to lock or unlock that channel

Press the MENU button when finished

Channel Guard Message

When a viewer attempts to watch a guarded channel, the following message appears:

To watch a channel that you have locked, enter the Lock Code using the 10 key pad.
If the wrong code is entered, the message "INVALID LOCK CODE!" will flash on the screen.

The channel cannot be accessed until the correct code is entered.

> THIS CHANNEL IS LOCKED BY CHANNEL GUARD.
> PLEASE ENTER LOCK CODE BY 10 KEY PAD TO UNLOCK IT.
>
> NO. - - - -

Notes:

- Once a channel has been unlocked, it will remain unlocked until the television is turned off.
- See also "Set Lock Code", page 37.

V-Chip

Your TV is equipped with V-Chip technology which enables you to block channels or content that you feel to be inappropriate for children, based on US and Canada rating guidelines. V-Chip has no effect on video signals from a DVD discs, VCR tapes or Camcorder connection.

Note: Some programs, and movies are broadcast without a ratings signal. Even if you set up V-CHIP ratings limits, these programs will not be blocked. See page 32 for information on how to block unrated programs.

Note (for Canadian viewers): The V-Chip function is based on specifications designed for the United States and therefore may not work properly in Canada.

You can customize the V-Chip settings of your television to match your personal tastes. The V-Chip menu below is the starting point for your V-Chip settings.

You can use US V-Chip settings (for programming broadcast from the United States), Canadian V-Chip settings (for programming broadcast from Canada), and movie ratings. You may use any or all of the settings (US V-Chip, Canada V-Chip, Movie ratings). Descriptions for setting each of the three V-Chip formats appear in the next six pages along with descriptions of the rating categories.

To access the rating categories:

Press the MENU button

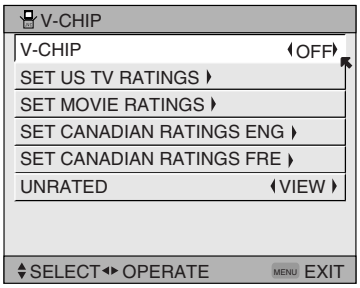
▲▼ To V-CHIP

◀▶ To operate (Lock icon will appear)

Press ZERO to access the V-Chip menu

◀▶ To turn V-Chip ON or OFF (V-Chip must be turned ON for rating settings to operate)

▲▼ To move to SET US TV RATINGS, SET MOVIE RATINGS, or SET CANADIAN RATINGS (see following pages for descriptions of each item)



Initial Setup

Unrated Programs

Unrated programming refers to any programming which does not contain a rating signal. Programming on television stations which do not broadcast rating signals will be placed in the "Unrated Programming" category.

Examples of Unrated programs:

- Emergency Bulletins
- News
- Public Service Announcements
- Sports
- Some Commercials
- Locally Originated Programming
- Political Programs
- Religious Programs
- Weather

Note:

- TV programs or movies that do not have rating signals will be blocked if the unrated category is set to BLOCK.

Directions to Block Unrated Programs

You can block programs that are not rated.

Press the MENU button

▲▼ To V-CHIP

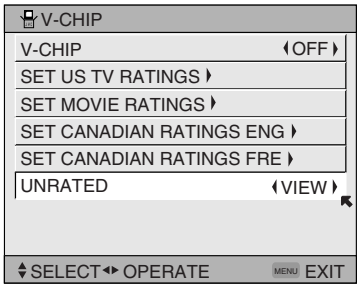
◀▶ To operate (The lock icon appears)

Press ZERO to access V-Chip setup options

▲▼ To UNRATED

◀▶ To VIEW or BLOCK

Press MENU when done



US V-Chip Ratings

U.S. PARENTAL RATING SYSTEMS

Programs with the following ratings are appropriate for children.

- ❑ **TV Y is Appropriate for All Children**
  Programs are created for very young viewers and should be suitable for all ages, including children ages 2 - 6.
- ❑ **TV Y7 is for Older Children**
  Most parents would find such programs suitable for children 7 and above. These programs may contain some mild fantasy violence or comedic violence, which children should be able to discern from reality.

Programs with the following ratings are designed for the entire audience.

- ❑ **TV G stands for General Audience**
  Most parents would find these programs suitable for all age groups. They contain little or no violence, no strong language, and little or no sexual dialog or situations.
- ❑ **TV PG Parental Guidance Suggested**
  May contain some, but not much, strong language, limited violence, and some suggestive sexual dialog or situations. It is recommended that parents watch these programs first, or with their children.
- ❑ **TV 14 Parents Strongly Cautioned**
  Programs contain some material that may be unsuitable for children under the age of 14 including possible intense violence, sexual situations, strong coarse language, or intensely suggestive dialog. Parents are cautioned against unattended viewing by children under 14.
- ❑ **TV MA Mature Audiences Only**
  These programs are specifically for adults and may be unsuitable for anyone under 17 years of age. TV MA programs may have extensive V, S, L, or D.

Viewing Guidelines

In addition to the ratings categories explained above, information on specific kinds of content are also supplied with the V-Chip rating. These types of content may also be blocked. The content types are:

- **V/FV** is for VIOLENCE/FANTASY VIOLENCE
- **S** stands for SEXUAL CONTENT
- **L** stands for strong LANGUAGE
- **D** stands for suggestive DIALOG

Initial Setup

Setting US V-Chip Ratings

Press the MENU button

▲▼ To V-CHIP

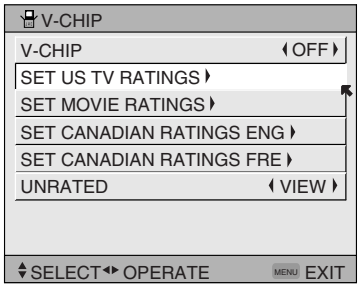
◀▶ To operate (lock icon 🔒 appears)

Press ZERO to access the V-Chip menu

◀▶ To turn V-Chip ON or OFF

▲▼ To move to SET US TV RATINGS

◀▶ To operate



Directions to set US V-Chip Ratings

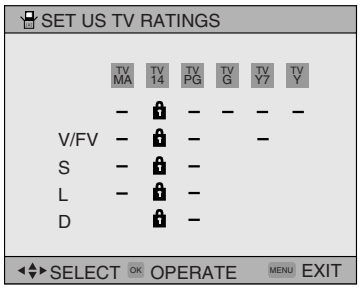
Line up the cursor in the column (TV PG, TV G, etc.) with the content row (V/FV, S, etc.) and press the ▲▼ or ◀▶ to move the cursor to the correct location. Press OK to turn the locking feature on or off. An item is locked if the 🔒 icon appears instead of a "—".

For example. To block viewing of all TV 14 shows, move the cursor to the top row of that column and add a lock icon. Once you've put a lock on the top row, everything in that column is automatically locked.

▲▼◀▶ To the TV 14 Column

Press the OK button to lock

Press the MENU button when finished



Note:

- If you want to change the setup, move the cursor to the top column and change the lock icon to "—" by pressing OK again. You may then select individual categories to block.

Movies Ratings

- **NR – Not Rated**
  This is a film which has no rating. In many cases these films were imported from countries which do not use the MPAA ratings system. Other NR films may be from amateur producers who didn't intend to have their film widely released.

NR (Not Rated) Programming may contain all types of programming including children's programming, foreign programs, or adult material.

- **G – General Audience**
  In the opinion of the review board, these films contain nothing in the way of sexual content, violence, or language that would be unsuitable for audiences of any age.
- **PG – Parental Guidance**
  Parental Guidance means the movie may contain some contents such as mild violence, some brief nudity, and strong language. The contents are not deemed intense.
- **PG-13 – Parents Strongly Cautioned**
  Parents with children under 13 are cautioned that the content of movies with this rating may include more explicit sexual, language, and violence content than movies rated PG.
- **R – Restricted**
  These films contain material that is explicit in nature and is not recommended for unsupervised children under the age of 17.
- **NC-17 – No One Under 17**
  These movies contain content which most parents would feel is too adult for their children to view. Content can consist of strong language, nudity, violence, and suggestive or explicit subject matter.
- **X – No One under 18**
  Inappropriate material for anyone under 18.

Directions to set Movie (MPAA) Ratings

Press the MENU button

▲▼ To V-CHIP
◀▶ To operate (Lock icon appears)

Press ZERO to access V-Chip setup options

▲▼ To SET MOVIE RATINGS
◀▶ To enter movies menu

For example:

To block viewing of X and NC-17 rated from shows:

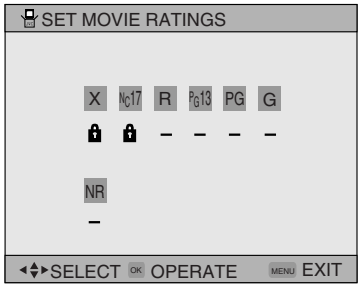
▲▼◀▶ To the X Column

Press the OK button to lock

▲▼◀▶ To the NC-17 Column

Press the OK button to lock

Press the MENU button to finish



Initial Setup

Canadian V-Chip Ratings

- **E – Exempt**
  Exempt programming includes: news, sports, documentaries and other information programming, talk shows, music videos, and variety programming.
- **C – Programming Intended for Children**
  Violence Guidelines: There will be no realistic scenes of violence. Depictions of aggressive behavior will be infrequent and limited to portrayals that are clearly imaginary, comedic or unrealistic in nature.
- **C8+ – Programming Intended for Children 8 and Over**
  Violence Guidelines: Any realistic depictions of violence will be infrequent, discreet, of low intensity and will show the consequences of the acts. There will be no offensive language, nudity or sexual content.
- **G – General Audience**
  Programming will contain little violence and will be sensitive to themes which could affect younger children.
- **PG – Parental Guidance**
  Programming intended for a general audience, but which may not be suitable for younger children. Parents may consider some content not appropriate for children aged 8-13.
- **14+ – 14 Years and Older**
  Parents are strongly cautioned to exercise discretion in permitting viewing by pre-teens and early teens. Programming may contain mature themes and scenes of intense violence.
- **18+ – Adult**
  Material intended for mature audiences only.

Directions to set Canadian V-Chip Ratings

Press the MENU button

▲▼ To V-CHIP
◀▶ To operate (lock icon appears)

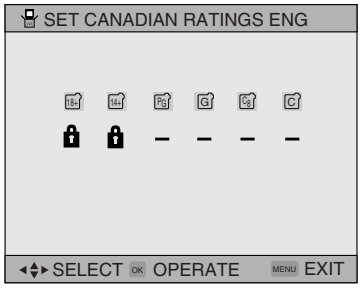
Press ZERO to access V-Chip setup options

▲▼ To SET CANADIAN RATINGS ENG (for English)
◀▶ To enter ratings menu

For example:

To block viewing of programming rated 14+ and 18+:

◀▶ To the 18+ Column
Press the OK button to lock
◀▶ To the 14+ Column
Press the OK button to lock
Press the MENU button to finish



Note:

- For instructions on “SET CANADIAN RATINGS FRE (in French)”, please see page 36 in the French side of this user’s guide.

Initial Setup

Set Lock Code

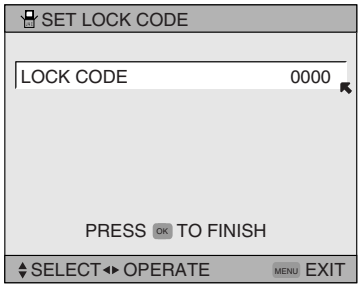
Channel guard and V-Chip settings are protected by a four-digit lock code. Your TV comes preset with a lock code of "0000". You may change the code to any four-digit number you wish. To change the lock code, follow the steps below.

Press the MENU button

▲▼ To SET LOCK CODE

◀▶ To operate (lock icon appears)

Press ZERO to access the lock code



The first digit will be highlighted

◀▶ To select the number

▲▼ To move to the next digit

Continue to follow these directions for all four numbers

Press the OK button to finish (your lock code is now set)

Press the Menu button when finished

When a viewer attempts to watch a blocked channel, this message appears:

The channel will remain blocked until the correct lock code is entered (see above for information on setting your lock code).

THIS PROGRAMMING EXCEEDS YOUR RATING LIMITS.
PLEASE ENTER LOCK CODE BY 10 KEY PAD TO UNLOCK IT.
NO. - - - -

Notes:

- After a power interruption you must reset the lock code.
- Write your lock code number down and keep it hidden from potential viewers.
- If you forget the lock code, a new code may be set using the steps listed above.

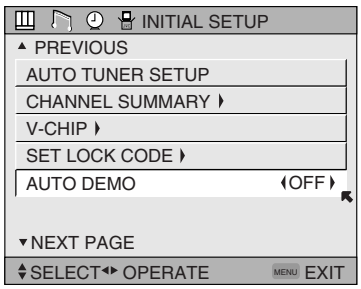
Auto Demo

This function lets you preview the many different viewing modes of your TV. It will cycle through "Multi Screen Demo", "Picture in Picture Demo", all of the different "Aspect" ratios and all of the different "Video Status" modes.

Press the MENU button

▲▼ To AUTO DEMO

◀▶ To turn AUTO DEMO ON or OFF



Note:

- To stop auto demo, press the MENU button, and select auto demo by pressing the ▲▼ buttons, and turn it off by pressing the ◀▶ buttons. Press the MENU button to finish.

Initial Setup

Language

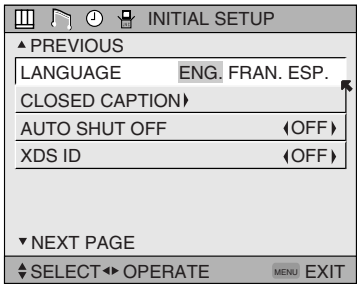
The language function is described on page 20 as the interactive plug-in menu. If you need to choose the language again, follow the steps below.

Press the Menu button

▲▼ To LANGUAGE

◀▶ To choose a language: ENG. (English), FRAN. (French) or ESP. (Spanish)

Press the MENU button when finished



Closed Caption

Many broadcasts now include an onscreen display of dialog called closed captions. Some broadcasts may also include displays of additional information in text form. Your television can access and display this information using the closed caption feature. To activate the closed caption feature, follow the steps below.

Press the MENU button

▲▼ To CLOSED CAPTION

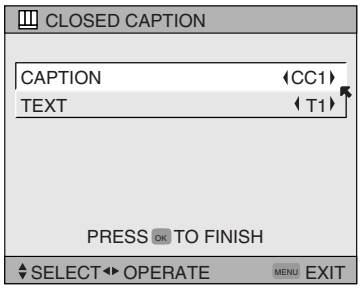
◀▶ To operate

▲▼ To select CAPTION or TEXT

◀▶ To select a caption (CC1 to CC4) or text channel (T1 to T4)

Press the OK button to save

Press the MENU button when finished



Notes:

- Closed caption subtitles are usually found on closed caption channel CC1. Some programs may include additional text information which is usually found on text channel T1. The other channels are available for future use.
- Closed captioning may not work correctly if the signal being received is weak or if you are playing a video tape.
- Most broadcasts containing closed captioning will display a notice at the start of the program.
- To select the mode, press the C.C. button. See page 54.

Auto Shut Off

This function automatically shuts off your TV when there is no signal from the channel the TV is on.

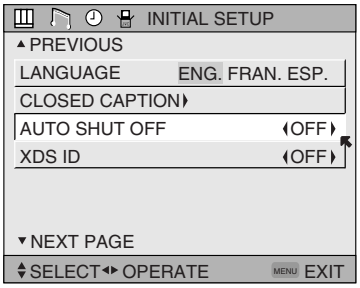
Press the MENU button

▲▼ To AUTO SHUT OFF

◀▶ To turn ON or OFF

Press the MENU button when finished

- If the channel that you have on does not receive a signal for more than one minute, the blinking text "NOT RECEIVING A SIGNAL" appears on the screen, and starts the countdown. If no signal is being received within 10 minutes, the TV shuts itself off.



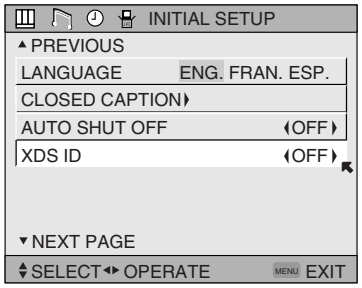
XDS ID

XDS ID Display provides a channel's call letters, the network's name, and even a program name. The XDS ID information is provided by the broadcaster.

Press the MENU button

▲▼ To XDS ID
◀▶ To turn ON or OFF

Press the MENU button when finished



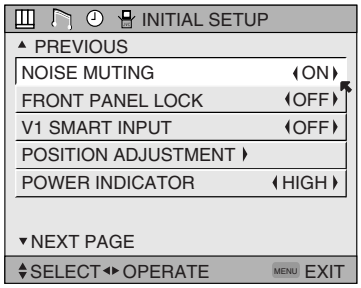
Noise Muting

This feature inserts a blank gray screen over channels which are not broadcasting or are too weak to be received clearly.

Press the MENU button

▲▼ To NOISE MUTING
◀▶ To turn noise muting ON or OFF

Press the MENU button when finished



Note:

- Noise muting will not work during auto tuner setup or when you operate channel summary.

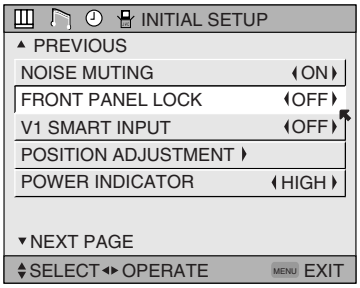
Front Panel Lock

This allows you to lock the keys on the front of the TV, so that a child may not accidentally change your viewing preferences.

Press the MENU button

▲▼ To FRONT PANEL LOCK
◀▶ To turn ON or OFF

Press the MENU button when finished



You can turn off this feature in the following ways:

- Unplug the power cord, and plug it back in. Do this if your batteries die, or you lose your remote control.
- Use the remote control.
- Press the MENU button on the front of the TV for more than 3 seconds. In this case, the OSD for FRONT PANEL LOCK will appear.

Note:

- To turn ON/OFF the TV, press the power button for more than 3 seconds. This feature will remain ON.

Initial Setup

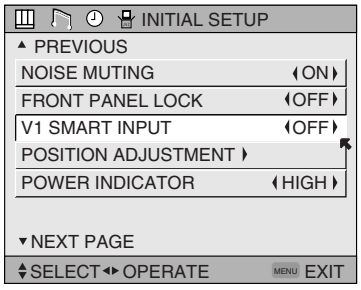
V1 Smart Input

This feature is used if you have connected an AV Receiver to your television. By turning this feature on, your television can automatically detect the signal source from your components that are connected to your AV Receiver.

Press the MENU button

▲▼ To V1 SMART INPUT
◀▶ To turn ON or OFF

Press the MENU button when finished



Notes:

- If you do not have an AV Receiver connected to your television, turn this feature OFF. By doing so, you can take advantage of using AV CompuLink components with your television.
- Some AV Receivers may not work with this function.

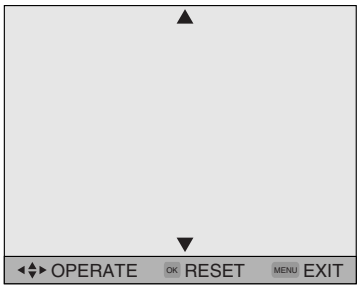
Position Adjustment

Position adjustment allows you to adjust the position of the picture on the screen vertically when the aspect is set to panorama, cinema, or full.

Press the MENU button

▲▼ To POSITION ADJUSTMENT
◀▶ To enter
▲▼◀▶ To adjust the position

Press the MENU button to finish



Notes:

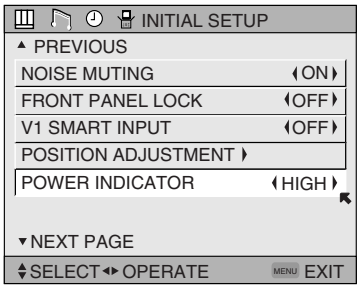
- To reset the adjustment to the center, press the OK button.
- When the arrow disappears, while you are adjusting the position, the position is at it's maximum limit.
- If you select regular size with aspect or Multi Screen, position adjustment option is not seen.
- When you change the screen size, perform the position adjustment again.
- Position adjustment allows you to adjust the screen position vertically and horizontally when the aspect is set HD panorama or cinema zoom for 1080i signal.

Power Indicator

Power indicator allows you to adjust the brightness of the power indicator

Press the MENU button

▲▼ To POWER INDICATOR
◀▶ To adjust POWER INDICATOR LOW, HIGH or OFF



Notes :

- When OFF is selected :
  The LED disappears if the you have a TV signal.
  The LED is lit as "LOW" when there is no TV signal.

Video-1 Monitor Out

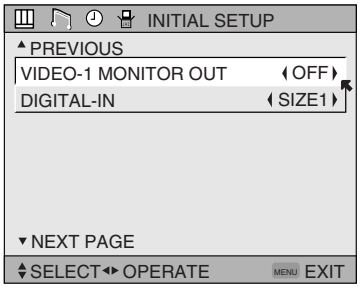
This function allows you to set whether the signal, which comes from VIDEO-1 input terminal, should be output from MONITOR OUT terminal. If you select it from MONITOR OUT, set it to "ON".

Press the MENU button

▲▼ To VIDEO-1 MONITOR OUT

◀▶ To select ON or OFF

Press the MENU button to finish



Digital-In

The DIGITAL-IN option can only be displayed in the INITIAL SETUP menu when a 480p picture signal is being input to the DIGITAL-IN terminal. This option adjusts the position when a 480p picture signal is being displayed on the screen. There are two types of 480p picture signals: 640x480 and 720x480. If the displayed picture is slightly shifted, the position can be adjusted by selecting either SIZE1 or SIZE2.

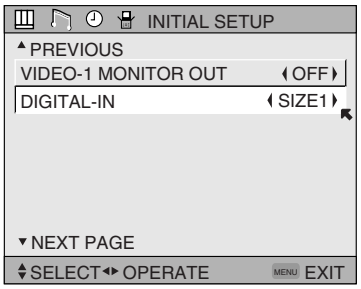
Press the MENU button

▲▼ To DIGITAL-IN

◀▶ To enter

◀▶ To select SIZE1 or SIZE2

Press the MENU button to finish



Note:
The DIGITAL-IN menu can only be displayed when a 480p picture signal is input to the Digital-In terminal and the picture is being displayed on the screen.

Picture Adjust

Picture Settings

These settings allow you to change and adjust the way the picture appears on your television.

TINT
Tint allows you to adjust the levels of red and green in your TV picture.

COLOR
The color function lets you make all the colors in the TV picture appear either more vivid or subtle.

PICTURE
Picture allows you to adjust the levels of black and white on the TV screen, giving you a darker or brighter picture overall.

BRIGHT
You can adjust the overall brightness of the TV picture with the Bright control.

DETAIL
The Detail feature adjusts the level of fine detail displayed in the picture.

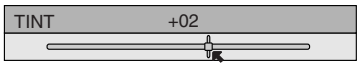
ENERGY SAVER MODE
The energy saver mode adjusts the level of brightness on the TV screen.

Adjust the Picture Settings

Press the MENU button

▲▼ To TINT, COLOR, PICTURE, BRIGHT, DETAIL or ENERGY SAVER MODE

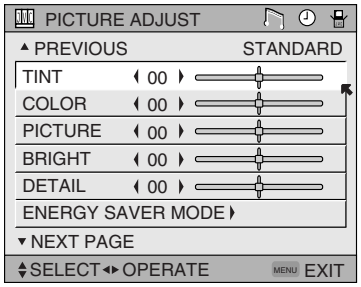
◀ ▶ To enter



◀ ▶ To adjust the setting

▲▼ To move to the next setting

Press the MENU button when finished



Picture Adjust

Color Temperature

You can decide how strong or dull the colors appear on the TV screen.

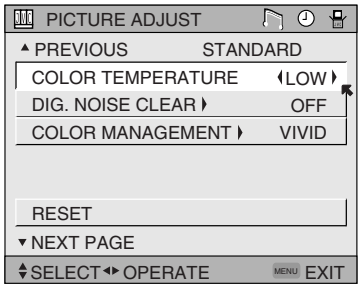
Press the MENU button

▲▼ To COLOR TEMPERATURE

◀▶ To enter

◀▶ To set LOW or HIGH

Press the MENU button when finished



Digital Noise Clear

With digital noise clear, this helps take our static or noise from a channel that may not be coming in clearly.

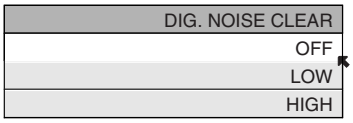
Press the MENU button

▲▼ To DIG. NOISE CLEAR

◀▶ To enter

▲▼ To select the mode “LOW”, “HIGH” or “OFF”

Press the MENU button when finished



Color Management

This TV supports the COLOR MANAGEMENT function to ensure dull colors are compensated to produce natural hues.

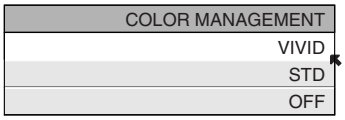
Press the MENU button

▲▼ To COLOR MANAGEMENT

◀▶ To enter

◀▶ To select the mode “VIVID”, "STD (STANDARD) " or "OFF"

Press the MENU button when finished



Reset

Reset resets all picture adjustments (tint, color, picture, bright, detail, color temperature, dig. noise clear and VSM) at once to the default settings.

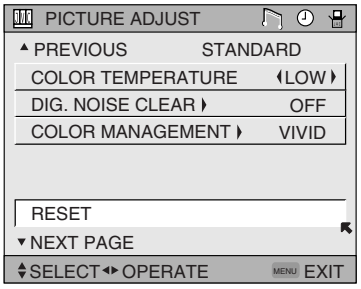
Press the MENU button

▲▼ To RESET

◀▶ To enter

The onscreen menu disappears for a moment, and then the settings are reset to the default setting for all the picture adjustments.

Press the MENU button when finished



Sound Adjust

Sound Settings

These settings allow you to change and adjust the sound on your television.

BASS – You can increase or decrease the level of low-frequency sound in the TV's audio with the bass adjustment.

TREBLE – Use treble to adjust the level of high-frequency sound in your TV's audio.

BALANCE – Adjust the level of sound between the TV's left and right speakers with the balance setting.

Adjust the Sound Settings

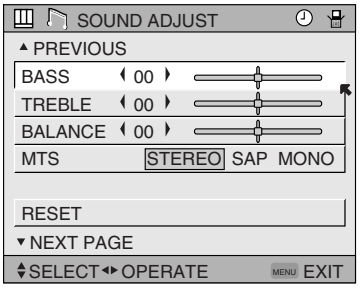
Press the MENU button

▲▼ To BASS, TREBLE or BALANCE

◀ ▶ To adjust the setting

▲▼ To move to the next setting

Press the MENU button when finished



Note:

- You can reset the sound adjustments (BASS, TREBLE and BALANCE) you set at once as the default setting when you select reset. See page 43.
- You can adjust BALANCE only when A.H.S. is off. See page 50.

MTS (Multi-Channel Television Sound)

MTS technology allows several audio signals to be broadcast at once, giving you a choice in what you wish to hear with a TV program. In addition to mono or stereo sound, an MTS broadcast may also include a second audio program (SAP).

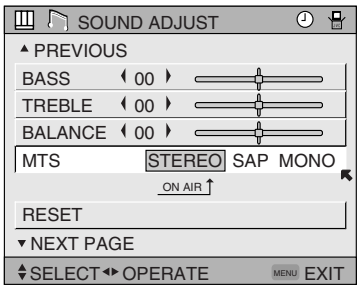
Press the MENU button

▲▼ To MTS

◀ ▶ Select the mode

(The ON AIR arrow tells you if a broadcast is in stereo and/or contains an SAP).

Press the MENU button when finished



Notes:

- Keep the TV in stereo mode to get the best sound quality. The sound will work in stereo mode even if a certain broadcast is in mono sound only.
- Choose the mono setting to reduce excessive noise on a certain channel or broadcast.
- Selecting SAP will allow you to hear an alternative soundtrack, if one is available.
- MTS unavailable if your television's input source is in input 1, 2, 3 or 4 mode, as described on page 49.

Reset

Reset resets all Sound Adjustments (Bass, Treble and Balance) at once to the default settings. See page 43 on how to use reset.

Set Clock

The set clock function is described on page 21 as the interactive plug-in menu. You can choose to set the clock automatically, or manually. If you need to set the clock again, follow the steps below.

Press the MENU button

▲▼ To SET CLOCK

◀▶ To operate

When you set the clock automatically, choose AUTO by pressing the ◀ or ▶ arrows.

▲▼ To TIME ZONE

◀▶ To select your time zone

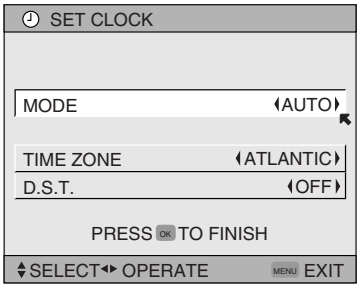
ATLANTIC ⟷ EASTERN ⟷ CENTRAL ⟷ MOUNTAIN ⟷ PACIFIC ⟷ ALASKA ⟷ HAWAII

▲▼ To D.S.T. (daylight savings time)

◀▶ To turn D.S.T. ON or OFF

Press OK to finish

Press the MENU button when finished



When you set the clock manually, choose MANUAL by pressing the ◀ or ▶ arrows.

▲▼ To move to the hour

◀▶ To set the hour

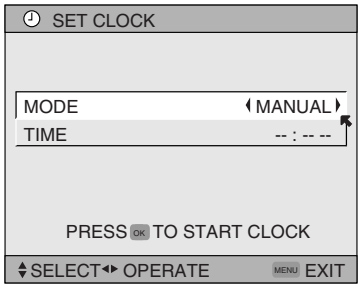
▲▼ To move to minutes

◀▶ To set the minutes

Press OK to start clock

THANK YOU !!

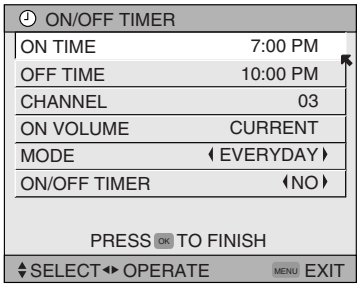
Press the MENU button when finished



Clock/Timers

On/Off Timer

The on/off timer lets you program your television to turn itself on or off. You can use it as an alarm to wake up, to help you remember important programs, or as a decoy when you're not home.



- Press the MENU button
- ▲▼ To ON/OFF TIMER
- ◀▶ To operate (begins with ON TIME)
- ◀▶ To set the hour (AM/PM) you want the TV to turn on
- ▼ To move to minutes
- ◀▶ To set the minutes
- ▼ To accept ON TIME and move to OFF TIME (the time the TV will turn off). Set the OFF TIME the same way as ON TIME
- ▼ To accept OFF TIME and move to CHANNEL
- ◀▶ To select channel
- ▼ To ON VOLUME
- ◀▶ To set the volume level
- ▼ To move to MODE
- ◀▶ Choose ONCE or EVERYDAY
- ▼ To ON/OFF TIMER
- ◀▶ Choose YES to accept the timer setting, choose NO if you don't wish to accept
- Press the OK button to finish
- Press the MENU button to exit the menu

Notes:

- The on/off time cannot be set to locked or guarded channels.
- In order for the on/off timer to work, the clock must be set.
- After a power interruption, the timer settings must be reset.

Button Functions

Multi Screen Function

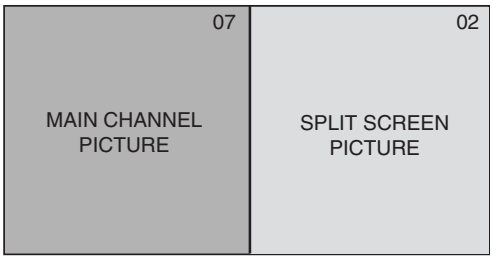
Your television has two kinds of screen: SPLIT (2 channels), and INDEX (12 channels).

Note: After you press any multiscreen button, if you press the menu button, only the picture adjust screen will appear.

Split

Activate the split-screen option by pressing SPLIT on the remote control.

Two channels (or input) will now appear onscreen. The channel (or input) you were watching before pressing SPLIT will appear on the left, the new channel will appear on the right. The sound will continue to come from the main screen channel (or input). To turn split-screen off and return to normal television viewing, press SPLIT again or press the BACK button.



Note:

- You can enter the SPLIT mode when the screen is in NORMAL or INDEX mode.
- Split-screen functions will not work with locked channels or channels blocked by V-Chip ratings limits. A grey screen will display instead.
- With split screen, the picture from the component terminal and HDCP terminal will not be displayed.
- The aspect of MAIN CHANNEL PICTURE becomes 16:9 when you input the picture of 480p, 720p and 1080i from the component terminal and HDCP terminal.
- After you press the SELECT button, and select SPLIT SCREEN when you press the OK button, select normal screen. If you don't operate, the MAIN CHANNEL SCREEN will be automatically selected about 8 seconds later.
- Main channel picture and split-screen will not display the same RF channel.

Button Functions

Index

This allows you to quickly look at up to 12 channels at a time so that you can decide which one to watch.

1	2	3	4
5	6	7	8
9	10	11	12

Notes:

- Only RF input signal will be displayed.
- You can watch the channel added in channel summary. See page 30.

Freeze

Pressing the FREEZE button causes the screen to change to the split-screen display with the still picture displayed on the right. In order to return to the normal display, press the FREEZE button once again.

Note: When the screen is in freeze mode, if you do not operate it within 15 minutes, this function will cancel out.

Swap

You can exchange the channel (or input) displayed in the split screen window for the main screen image by pressing the SWAP button.

Note: This function will only work in SPLIT mode.

Select

With SELECT, you can select the picture (channel) while viewing SPLIT screen. When you press SELECT button, the channel number on the top will be highlighted. Each press of SELECT will shift the channel.

Cable Box Note:

The 2–Tuner Multi Screen function may not operate when used with certain cable boxes. This is because while some models of cable boxes may receive up to 181 channels, and may only send the signal from one channel to your television. (Please refer to diagram on page 15). For the 2–Tuner Multi screen function to operate correctly, it must have access to all available channels. Since the television is receiving the signal from only one channel from the cable box, it is impossible for the 2–Tuner Multi screen function to display a second, different channel. Because there are many different models of cable boxes in use today, if you are having problems operating your 2–Tuner Multi screen function feature with your cable box, we recommend you contact your local cable company for connection advice.

Button Functions

Power

Turns the TV on or off.

Press the POWER button

Number Buttons - 10Key Pad

Use the number buttons on the remote control to move directly to a specific channel. For example, to move to channel 7:

0 (Zero)

7 (Seven)

100+ Button

Use the 100+ button to directly access channels above channel 99. For example, to move to channel 124, press 100+, 2 (Two), 4 (Four).

Input

Selects the signal input source for the television: Input-1, 2 or 3 for video devices like VCR's DVD players, or camcorders.

INPUT 1, 2, 3

Notes:

- When you return to TV mode, press the RETURN +/TV button or direct 10 key pad.
- You can also access the FRONT CONTROL PANEL screen by using the MENU button on the front of the TV instead of the remote control. It appears between INITIAL SETUP and PICTURE ADJUST screen, and it has INPUT and ASPECT menus. Choose INPUT or ASPECT by pressing MENU ▼ on the front panel and choose input or aspect by using the CHANNEL +/- buttons (◀ OPERATE ▶).

Digital-In

Use this button to directly select the digital-in input.

Press the DIGITAL-IN button

- Digital-In on the menu will display only when the 480p picture signal in Digital-In is displayed.

Channel +/–

Use these buttons to move up or down all the available channels your TV is able to receive.

Volume +/–

Use these buttons to raise or lower the TV's volume level.

Button Functions

Return +/TV

The return+/TV button has three functions:

Return - Returns to the channel viewed just before the channel currently onscreen.

Return+ - Lets you program a specific channel to return to while scanning through the channels using the CH+ and CH– buttons.

TV - Returns to the TV mode.

RETURN+/TV and hold for three seconds

RETURN CHANNEL
PROGRAMMED!

The channel currently active has been programmed as your return+ channel. Now scan through the channels using the CHANNEL+/– buttons.

RETURN+/TV

You will return to your programmed channel.

- To cancel your return+ channel, press and hold the RETURN+ button for three seconds. The message “RETURN CHANNEL CANCELLED!” will appear.
- Return+ works only with the Channel+/– buttons. Pressing any number key will cancel return+.

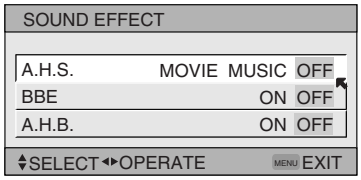
Sound

By pressing the sound button, you can change the A.H.S. (Advanced Hyper Surround), BBE and A.H.B. (Active Hyper Bass) mode.

A.H.S. - Adds a more spacious surround sound. Music gives basic effect and movie for more effect.

BBE - BBE high definition audio adds natural, clear and extraordinary sound quality to any program.

A.H.B. - Emphasizes the bass sound on your television.



Press the SOUND button

▲▼ To select A.H.S., BBE or A.H.B.
◀▶ To choose the setting

Press the MENU when finished

Note: BBE is a registered trademark of BBE Sound, Inc. For U.S., licensed from BBE Sound, Inc. under USP 4638258, 4482866 and 5510572. For Canada, licensed from BBE Sound, Inc. BBE is a registered trademark of BBE Sound, Inc.

Button Functions

Video Status

The video status button gives you a choice of four TV picture display settings, including a display of your own preferences.

Standard - Resets the picture display to the factory settings.

Dynamic - Gives a vivid picture with better contrast when viewing in a brightly lit room.

Theater - Gives a rich, film-like look to video when viewing in a dimly lit room.

Game - Used for when you are playing video games connected to your TV.

Press the VIDEO STATUS button
By every press of the VIDEO STATUS button, you change the mode.

Note: You can also change the mode by pressing the ▲▼ buttons.

Natural Cinema

Natural cinema corrects the problem of blurred edges which may occur when viewing a program originally shot on film (such as motion pictures) or animation. If you notice blurring at the edges of these programs, press NATURAL CINEMA and set it to AUTO. Natural Cinema helps correct conversion errors that occur when film, which is shot at 24 frames-per-second, is broadcast at the television rate of 30 frames-per-second.

Press the NATURAL CINEMA button

Notes: The natural cinema mode is automatically set to “AUTO” in the following cases:

- Turning on or off
- Changing the channel or input mode
- Using multi-screen functions

TheaterPro D6500K

The TheaterPro D6500K color temperature technology function makes sure that the video you watch is set to the standard color temperature, so that what you see is as true to what the film to video editors intended it to be.

Press the THEATERPRO button

Muting

The MUTING button instantly turns the volume down completely when you press it. Press MUTING and the volume level will instantly go to zero. To restore the volume to its previous level, press MUTING again.

Button Functions

Sleep Timer

The Sleep Timer can turn the TV off for you after you fall asleep. Program it to work in intervals of 15 minutes, for a total time of up to 180 minutes.

Press the SLEEP TIMER button

→ 0 15 30 45 60 75 90 105 120 135 150 165 180 →

Sleep Timer Message

20 seconds before the automatic shutoff, this message will appear:

GOOD NIGHT!!
PUSH SLEEP TIMER BUTTON
TO EXTEND

You then have 20 seconds to press the SLEEP TIMER button to delay the shut off for another 15 minutes.

Display

The display screen shows the current status of timers, inputs, and XDS ID.

Press the DISPLAY button

The screen to the right shows the following information:

- The current channel or AV input (Channel 05)
- The current time (12:20 pm)
- Sleep timer status/minutes remaining (The Sleep Timer is off)
- On/off timer status (Set to turn on everyday at 7:00 PM, off at 10:00 PM)
- Each Press of the DISPLAY button changes the display mode:

05 KLVX PBS	
JAZZ FESTIVAL	
NOW	12:20 PM
SLEEP TIMER	OFF
ON/OFF TIMER	EVERYDAY
ON TIME	7:00 PM
OFF TIME	10:00 PM

→ Display → Time → Channel → Off →

Display - Full screen shown above

Time - Shows the current time only

Channel - Shows the current channel

Off - Turns display off

Notes:

- You may also turn off the display at any step by pressing MENU.
- If the clock, sleep timer or on/off timer are not set, the display screen will show: “CLOCK NOT SET”, “SLEEP TIMER OFF”, and “ON/OFF TIMER OFF” respectively.

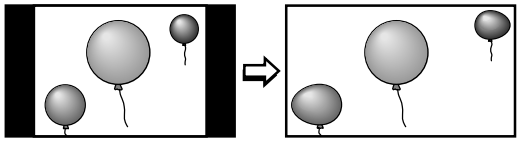
Button Functions

Aspect

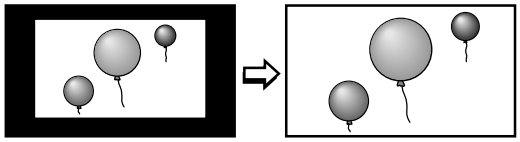
This feature will help you adjust the picture you are watching to give you the best possible picture quality.

Aspect Ratios

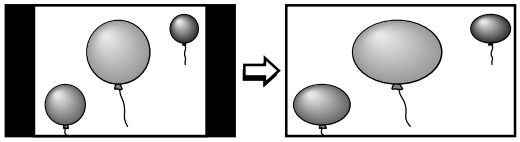
PANORAMA - With this ratio a normal 4:3 aspect picture is stretched to fit the dimensions of the 16:9 aspect screen.



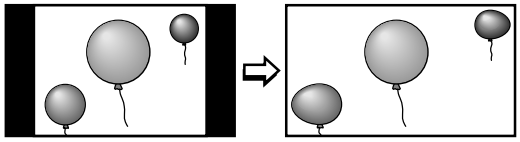
CINEMA - This ratio "zooms in" on the center part of a 4:3 aspect picture, blowing it up to fill the 16:9 screen.



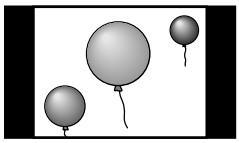
FULL - This is the ratio to use when watching 16:9 High-Definition broadcasts.



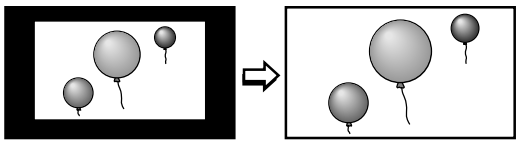
HD PANORAMA - This ratio stretches the High-Definition 16:9 aspect image to eliminate the black side bars.



REGULAR - The regular ratio is used when you want to watch a 4:3 broadcast or recorded program without modifying the original picture to fit the dimensions of your 16:9 screen. The 4:3 picture will fill the screen from top to bottom, while black bars will appear to fill up the remaining space along the picture's sides. The 4:3 picture will be centered within the boundaries of the 16:9 screen.



CINEMA ZOOM - This ratio stretches the High-Definition 16:9 aspect image to eliminate the black surrounding bars.



Button Functions

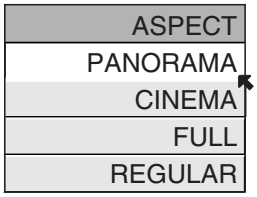
Aspect Ratios (Continued)

Press the ASPECT button

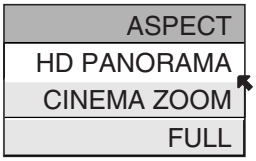
- *By pressing the ASPECT button, you can change the size.*

When you change the aspect ratios, it is different from their broadcast or recorded program.

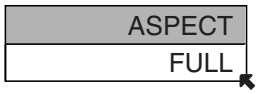
NTSC, 480i, 480p, HDCP 480p



HD, HDCP 1080i



720P, HDCP 720p



Notes:

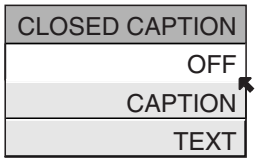
- You can also choose the size by pressing the ▲▼ buttons.
- When you change the aspect ratio or signal, reset the picture position to center.

C.C. (Closed Caption)

Use the C.C. (Closed Caption) button to select the mode of closed caption.

Press the C.C. button

- See page 38 when you set the caption/text mode.



Menu

The MENU button allows you to access JVC's onscreen menu system. Press MENU to activate the onscreen menu system.

- See individual topics like "Sound Adjust" for specific information on using menus.

OK

This button confirms your selection when you are in one of the onscreen menus.

Back

This button allows you to go back in the menu to change a selection or correct a mistake.

Button Functions

TV/CATV Slide Switch

Use either the television's own tuner or a cable box to select channels. Set this switch to **TV** to operate the television's built-in tuner. Move the switch to **CATV** to operate a cable box.

Note:

- See page 23 for information on programming your remote for cable box operation.

VCR/DVD Slide Switch

You can control a VCR or DVD player with the buttons on the lower part of the remote control. Move the slide switch to **VCR** or **DVD** to operate.

Notes:

- The remote is preset with the code 000 to control JVC-brand VCR's. For any other manufacturer's brand VCR, please see the code chart and instructions on page 24.
- The remote is preset with the code 000 to control JVC-brand DVD players. For any other manufacturer's brand DVD player, please see the code chart and instructions on page 25.

VCR Buttons

You can use this remote control to operate the basic functions of your VCR. These functions include: play, record, rewind, fast-forward, stop, pause, channel scan, TV/VCR, power on, and power off.

Move the selector switch to **VCR** to operate.

- The remote is preset with the code 000 to control JVC-brand VCR's. For any other manufacturer's brand VCR, please see the code chart and instructions on page 24.

DVD Buttons

You can also use this remote control to operate the basic functions of your DVD player. These functions include: play, rewind, fast-forward, stop, still/pause, previous/next, tray open/close, power on, and power off.

Move the selector switch to **DVD** to operate.

- The remote is preset with the code 000 to control JVC-brand DVD players. For any other manufacturer's brand DVD player, please see the code chart and instructions on page 25.

Light

All remote control buttons are illuminated, except for the TV/CATV slide switch, VCR/DVD slide switch and Light button. Press the LIGHT button to turn the illumination on for 4 seconds.

Troubleshooting

PROBLEMS	CHECK
There is no power	• See if the power cord became unplugged. • Check for a blown fuse or circuit breaker or a power outage.
There is no picture or sound	• The antenna could be disconnected. • The input mode could be set improperly. See page 49. • The tuner (Auto Tuner Setup) could be set improperly. See page 30. • The TV station may be having difficulties. Check to see if other stations are working.
Remote control is not operating properly or at all	• Check to see that the batteries are still working and properly installed. • Make sure the remote has a clear sight path to the TV. • Check that the TV/CATV switch is in the proper position. • You may be too far from the TV. You must be within 23 feet (7 meters).
You cannot select a certain channel	• Make sure the channels have been programmed. See "Channel Summary", page 30. • Check to see if the channel is locked. See "Channel Summary - Lock" page 31.
The power turns off by itself	• Make sure the set did not become unplugged. • Perhaps the On/Off Timer is set. See page 46. • Check to see if the Sleep Timer was set. See page 52.
The clock is wrong	• The power was interrupted and the clock was not reset. See page 45.
The color quality is poor	• Tint and Color may be improperly adjusted. See page 42. • The Video Status mode may be turned to the wrong setting. See page 51.
There are lines across the picture	• There could be interference from another electrical appliance, such as a computer, another TV or VCR. Move any such appliances further away from the TV.
The picture is spotted	• There could be interference from a high-wattage appliance, like a hairdryer or vacuum, operating nearby. Move the antenna away from the appliance or change to a coaxial cable connection which is less prone to interference.
There are double pictures (ghosts)	• A building or passing airplane can reflect the original signal and produce a second, slightly delayed one. Adjust your antenna position.
Picture is snowy (image noise)	• Your antenna may be damaged, disconnected or turned. Check the antenna connection. If the antenna is damaged, replace it.
Screen is 40% black	• The Closed Caption Text mode is on. Turn it off in the Closed Caption Menu, page 38.
Stereo or bilingual programs can't be heard	• Make sure the MTS settings are correct. See "MTS" on page 44.
Static electricity	• It is normal to feel static electricity if you brush or touch the screen.
You hear occasional crackling sounds	• It is normal for the TV to make crackling sounds when first turned on or off. Unless the sound or picture become abnormal, this is fine.
The AUTO DEMO finished automatically	• The On Timer that you programmed has started. • The channel that the AUTO DEMO is using is a channel that is blocked by V-Chip. • The Auto Shut Off that you programed has occured.

JVC Warranty

JVC COMPANY OF AMERICA warrants this product and all parts thereof, except as set forth below ONLY TO THE ORIGINAL PURCHASER AT RETAIL to be FREE FROM DEFECTIVE MATERIALS AND WORKMANSHIP from the date of original retail purchase for the period shown below. ("The Warranty Period")

PARTS 1 YEAR	LABOR 1 YEAR

This limited warranty is valid only in the fifty (50) United States, The District of Columbia and Commonwealth of Puerto Rico.

WHAT WE WILL DO:

If this product is found to be defective within the warranty period, JVC will repair or replace defective parts at no charge to the original owner.
Such repair and replacement services shall be rendered during regular business hours by JVC authorized service centers. Parts used for replacement are warranted only for the remainder of this Warranty Period. Televisions with a screen size of 25 inches and larger are covered on an in-home basis.

WHAT YOU MUST DO FOR WARRANTY SERVICE:

Either contact the selling dealer (retailer) or call 1-800-252-5722 to arrange In-home service. In-home service will require clear access to the Television by the service technician.

WHAT IS NOT COVERED:

This limited warranty provided by JVC does not cover:

1. Products which have been subject to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, or if repaired or serviced by anyone other than a service facility authorized by JVC to render such service, or if affixed to any attachment not provided with the products, or if the model or serial number has been altered, tampered with, defaced or removed.
2. Initial installation, installation and removal from "built-in" entertainment centers and other mounting systems.
3. Operational adjustments covered in the Owner's Manual, normal maintenance, including head cleaning.
4. Damage that occurs in shipment, due to an act of God, and cosmetic damage.
5. Signal reception problems and failures due to line power surge.
6. Products used for commercial purposes (including but not limited to rental).
7. Accessories.
8. Batteries (except that Rechargeable Batteries are covered for 90 days from date of purchase).

There are no express warranties except as listed above.

Warranty

THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN.

JVC SHALL NOT BE LIABLE FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE, OR ANY OTHER DAMAGES, WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES, RECORDS OR DISCS) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion of incidental or consequential damages or limitations on how long the warranty lasts, so these exclusions or limitations may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary state to state.

JVC COMPANY OF AMERICA
DIVISION OF JVC AMERICAS CORP.

1700 Valley Road
Wayne, New Jersey 07470

http://www.jvc.com

REFURBISHED PRODUCTS CARRY A SEPARATE WARRANTY. THIS WARRANTY DOES NOT APPLY. FOR DETAILS OF REFURBISHED PRODUCT WARRANTY, PLEASE REFER TO THE REFURBISHED PRODUCT WARRANTY INFORMATION PACKAGED WITH EACH REFURBISHED PRODUCT.

For customer use:

Enter below the Model No. and Serial No. which is located either on the rear, bottom or side of the cabinet.

Retain this information for future reference.

Model No.: _____ **Serial No.:** _____
Purchase Date: _____ **Name Of Dealer:** _____

Authorized Service Centers

QUALITY JVC SERVICE

HOW TO LOCATE YOUR JVC SERVICE CENTER

TOLL FREE: 1 (800) 537-5722
http://www.jvc.com

Dear Customer,

In order to receive the most satisfaction from your purchase, please read the instruction booklet before operating the unit. In the event that repairs are necessary, call our Customer Relations Department at 1-800-537-5722 or visit our website at **www.JVC.com**

Remember to retain your Bill of Sale for Warranty Service.

Don't service the television yourself

Caution

To prevent electrical shock, do not open the cabinet. There are no user serviceable parts inside. Please refer to qualified service personnel for repairs.

Accessories

To purchase accessories for your JVC product, please call toll free:1 (800) 882-2345 or on the web at **www.JVC.com**

Specifications

Model	LT-32WX84
Type	LCD Flat Television
Reception Format	NTSC, BTSC System (Multi-Channel Sound) HDTV digital broadcast ready
Reception Range	VHF 2 to 13, UHF 14 to 69 Sub, Mid, Super, Hyper and Ultra bands (180 channel frequency synthesizer system)
Power Source	AC 120V, 60 Hz
Power Consumption	223W
Screen Size	32 inch / 80 cm measured diagonally, 15:9 ratio
Speakers	6.6 cm round X 2
Audio Output	Full Range - 10W + 10W
Antenna Terminal	75 ohms (VHF/UHF) (F-type connector)
External Input Jacks	Video: 1 Vp-p, 75 ohms Audio: 500 mVrms (-4dBs) high impedance
Conponent Input Jack	Y: 1Vp-p positive, 75 ohms (negative sync provided) Pb/Pr: 0.7 Vp-p 75 ohms
S-Video Input Jacks	Y: 1Vp-p positive, 75 ohms (negative sync provided) C: 0.286 Vp-p (burst signal), 75 ohms
Audio Output Jacks (FIX)	FIX: 500mVrms (-4dBs) Low impedance (1000 Hz when modulated 100%)
Monitor Output Jacks	Video: 1 Vp-p, 75 ohms Y: 1Vp-p, 75 ohms (negative sync provided) C: 0.286 Vp-p (burst signal), 75 ohms
Digital–In	DVI–D Single Link 19 pin Note: The Digital–In terminal is not compatible with picture signals of a personal computer
Headphone Jack	Ø 3.5 mm X 1
Dimensions (in) W x H x D (cm)	32 7/8 x 25 1/8 x 3 7/8 83.3 x 63.8 x 9.7
Weight (lbs / kg)	47.1 / 21.4
Accessories	Illuminated remote control unit / AA batteries X 2

Specifications subject to change without notice.

JVC COMPANY OF AMERICA
Division of JVC Americas Corp.
1700 Valley Road
Wayne, New Jersey, 07470

JVC CANADA, INC.
21 Finchdene Square
Scarborough, Ontario
Canada, M1X 1A7

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P.W. BOARD Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS	
CR	Carbon Resistor
FR	Fusible Resistor
PR	Plate Resistor
VR	Variable Resistor
HV R	High Voltage Resistor
MF R	Metal Film Resistor
MG R	Metal Glazed Resistor
MP R	Metal Plate Resistor
OM R	Metal Oxide Film Resistor
CMF R	Coating Metal Film Resistor
UNF R	Non-Flammable Resistor
CH V R	Chip Variable Resistor
CH MG R	Chip Metal Glazed Resistor
COMP. R	Composition Resistor
LPTC R	Linear Positive Temperature Coefficient Resistor

CAPACITORS	
C CAP.	Ceramic Capacitor
E CAP.	Electrolytic Capacitor
M CAP.	Mylar Capacitor
CH CAP.	Chip Capacitor
HV CAP.	High Voltage Capacitor
MF CAP.	Metalized Film Capacitor
MM CAP.	Metalized Mylar Capacitor
MP CAP.	Metalized Polystyrol Capacitor
PP CAP.	Polypropylene Capacitor
PS CAP.	Polystyrol Capacitor
TF CAP.	Thin Film Capacitor
MPP CAP.	Metalized Polypropylene Capacitor
TAN. CAP.	Tantalum Capacitor
CH C CAP.	Chip Ceramic Capacitor
BP E CAP.	Bi-Polar Electrolytic Capacitor
CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

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PACKING PARTS LIST 3-14

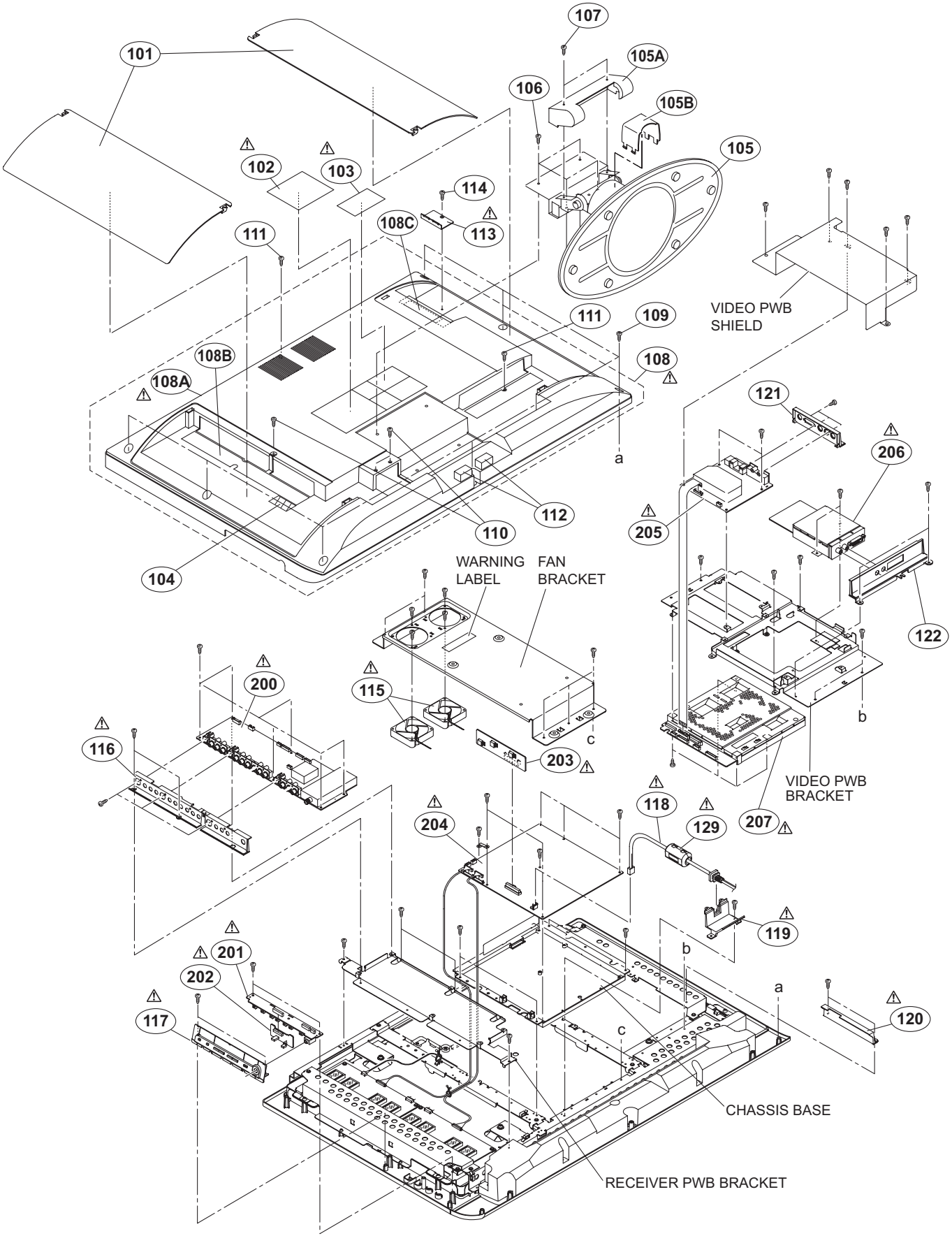
USING P.W. BOARD & REMOTE CONTROL UNIT

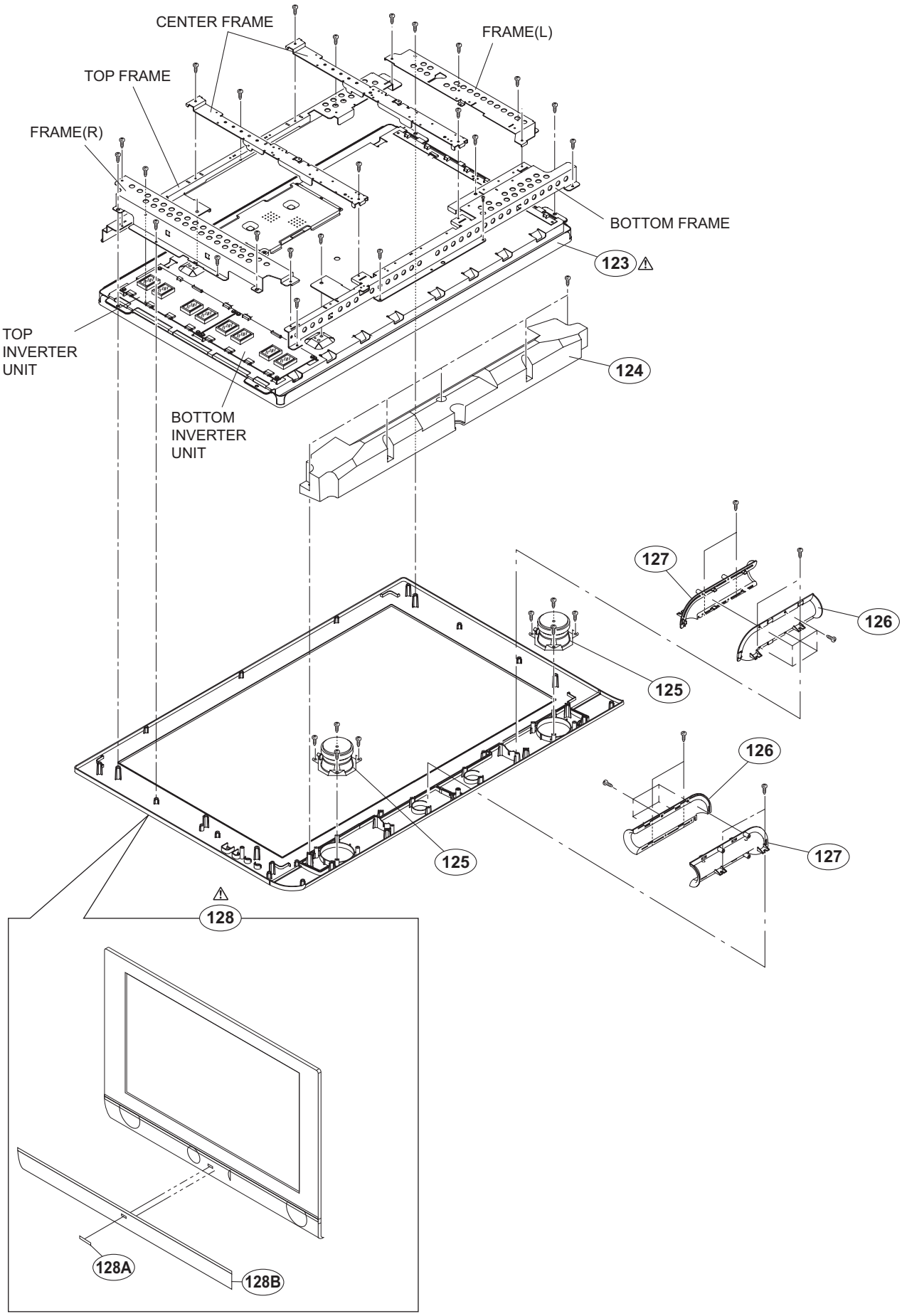
P.W.B ASS'Y	LT-32WX84/HA
VIDEO P.W.B	LCA90152-03C(SSB-1086A)
POWER P.W.B	LCA90149-07F(SSB-9091A)
REGULATOR P.W.B	LCA90150-07D(SSB-9191A)
RECEIVER P.W.B	LCA90182-01B(SSB-0J086A)
FRONT SENSOR P.W.B	LCA90155-03B(SSB-0L286A)
FRONT CONTROL P.W.B	LCA90154-03D(SSB-0L386A)
MI-CON & DIST MODULE P.W.B	LCA10291-04G(SSB-0D091A)
DIGITAL INPUT MODULE P.W.B	32WX84CP-S
REMOTE CONTROL UNIT	RM-C13G-1H

EXPLODED VIEW PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	101	LC11686-001B	JACK COVER	(x2)	
⚠	102	LC20439-005A-0L	RATING LABEL		
	103	LC41424-002A	HDCP WARNING		
	104	LC41749-001A	CAUTION LABEL		
	105	LC41609-001C	STAND ASSY	Inc.105A-105B	
	105A	N0354	STAND COVER		
	105B	N0355	CORD HOLDER		
	106	QYSPSPD5012M	SCREW	M5 x 12mm(x4)	
	107	QYSPSPD3008N	SCREW	3mm x 8mm(x2)	
⚠	108	LC11689-002A	REAR PANEL ASSY	Inc.108A-108C	
⚠	108A	LC11685-002A	REAR COVER		
	108B	LC32367-002A	OPERATION SHEET		
	108C	LC32368-002A	OPERATION SHEET		
	109	QYSBSFG4016M	TAP SCREW	4.0mm x 16mm(x7)	
	110	QYSSSF3010M	TAP SCREW	M3 x 10mm(x3)	
	111	QYSPSPD3008M	SCREW	3mm x 8mm(x2)	
	112	LC30599-054A	STICK SHEET	(x2)	
⚠	113	LC32366-001A-HK	SERVICE COVER		
	114	QYSBSF3008M	TAP SCREW	3mm x 8mm	
⚠	115	QAR0295-002	COOLING FAN	(x2)	
⚠	116	LC21334-001D	TERMINAL BASE		
⚠	117	LC32351-002A	CONTROL KNOB ASSY		
⚠	118	QMPD460-170-JC	POWER CORD(US/CA)	1.7m BLACK	
⚠	119	LC21348-001D-HK	POWER CORD HOLDER		
⚠	120	LC21349-002A-HK	CARD BASE		
⚠	121	LC32346-002A	JACK BASE		
⚠	122	LC32348-004A	DEGITAL INPUT MODULE BASE		
⚠	123	QLD0304-002	LCD MODULE		
	124	LC11633-001B	SPEAKER BOX		
	125	QAS0142-001	SPEAKER	SP01/SP02(x2)	
	126	LC21339-001A-HK	DUCT BASE	(x2)	
	127	LC21340-001B-HK	DUCT COVER	(x2)	
⚠	128	LC11688-002B	FRONT PANEL ASSY	Inc.128A-128B	
	128A	CM48006-010-C	JVC MARK		
	128B	LC11692-001A	PUNCHING SHEET		
⚠	129	QQR1193-001	CORE FILTER	FOR POWER CORD	
⚠	200	LCA90182-01B	RECEIVER PWB		
⚠	201	LCA90154-03D	REGULATOR PWB		
⚠	202	LCA90155-03B	FRONT SENSOR PWB		
⚠	203	LCA90150-07D	REGULATOR PWB		
⚠	204	LCA90149-07F	POWER PWB		
⚠	205	LCA90152-03C	VIDEO PWB		
⚠	206	32WX84CP-S	DIGITAL INPUT MODULE PWB		
⚠	207	LCA10291-04G	MI-CON & DIST MODULE PWB		

EXPLODED VIEW




CENTER FRAME
FRAME(L)
TOP FRAME
FRAME(R)
BOTTOM FRAME
123 ⚠
TOP
INVERTER
UNIT
124
BOTTOM
INVERTER
UNIT
127
126
125
126
125
127
⚠
128
128A
128B

PRINTED WIRING BOARD PARTS LIST

VIDEO P.W.BOARD ASSY
(LCA90152-03C) (SSB-1086A)

⚠Ref No.	Part No.	Part Name	Description	Local
IC1211	TA1318N	IC		
IC1212	SN74AHC2G08T-X	IC		
IC1301	AN15852A	IC		
IC3001	MN82832	IC		
IC3002	R1170H331B-X	IC		
Q1232	2SA1530A/QR/-X	SI TRANSISTOR		
Q1301	2SC3837K/NP/-X	TRANSISTOR		
Q1302	2SC3837K/NP/-X	TRANSISTOR		
Q1303	2SC3837K/NP/-X	TRANSISTOR		
Q3001	2SC3928A/QR/-X	TRANSISTOR		
Q3002	2SC3928A/QR/-X	TRANSISTOR		
Q3003	2SA1530A/QR/-X	SI TRANSISTOR		
Q3004	2SC3928A/QR/-X	TRANSISTOR		
Q3005	2SC3928A/QR/-X	TRANSISTOR		
Q3006	2SA1530A/QR/-X	SI TRANSISTOR		
Q3007	2SA1530A/QR/-X	SI TRANSISTOR		
Q3501	2SA1530A/QR/-X	SI TRANSISTOR		
Q3502	2SC3928A/QR/-X	TRANSISTOR		
Q3505	2SA1530A/QR/-X	SI TRANSISTOR		
Q3506	2SC3928A/QR/-X	TRANSISTOR		
Q3509	2SA1530A/QR/-X	SI TRANSISTOR		
Q3510	2SC3928A/QR/-X	TRANSISTOR		
D2402	MA8100/M/-X	Z DIODE		
D2404	MA8100/M/-X	Z DIODE		
D2405	MA8100/M/-X	Z DIODE		
C1213	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1214	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C1215	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J	
C1216	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z	
C1218	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C1219	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z	
C1233	NDC31HJ-180X	C CAPACITOR	18pF 50V J	
C1301	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1302	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1303	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C1304	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1305	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1306	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1307	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1311	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C1312	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C1313	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C1314	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1315	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1322	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1323	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1324	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1325	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1326	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C1327	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C1328	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C1332	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1333	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1342	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1343	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1354	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1355	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1356	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1361	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1362	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1363	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1364	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1365	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1372	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1382	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1392	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C2321	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C2322	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C2323	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C2341	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C2342	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C2343	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C3001	QENC1AM-336Z	BP E CAPACITOR	33uF 10V M	
C3002	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C3003	NDC31HJ-121X	C CAPACITOR	120pF 50V J	
C3004	NDC31HJ-150X	C CAPACITOR	15pF 50V J	
C3005	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z	

⚠Ref No.	Part No.	Part Name	Description	Local
C3006	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3007	NCB31AK-334X	C CAPACITOR	0.33uF 10V K	
C3008	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C3009	NDC31HJ-121X	C CAPACITOR	120pF 50V J	
C3010	NDC31HJ-150X	C CAPACITOR	15pF 50V J	
C3011	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z	
C3012	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3013	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3014	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C3015	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3016	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3017	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C3018	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3019	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3020	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3021	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3022	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3023	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3024	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3025	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C3026	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3027	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J	
C3028	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J	
C3029	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3030	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3031	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3032	NDC31HJ-560X	C CAPACITOR	56pF 50V J	
C3033	NDC31HJ-330X	C CAPACITOR	33pF 50V J	
C3034	NDC31HJ-560X	C CAPACITOR	56pF 50V J	
C3035	NDC31HJ-330X	C CAPACITOR	33pF 50V J	
C3036	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3037	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3038	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3039	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3041	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C3042	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3044	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3045	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3046	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3047	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C3048	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3049	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3050	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3051	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3052	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3053	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3054	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3055	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3056	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3057	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C3058	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3059	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C3060	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3061	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C3062	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3063	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C3064	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3065	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C3066	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3068	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3069	QETN1CM-476Z	E CAPACITOR	47uF 16V M	
C3070	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3071	QETN1CM-476Z	E CAPACITOR	47uF 16V M	
C3072	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3073	NCB10JK-106X	C CAPACITOR	10uF 6.3V K	
C3074	NDC31HJ-680X	C CAPACITOR	68pF 50V J	
C3077	NCB31AK-334X	C CAPACITOR	0.33uF 10V K	
C3078	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3080	QBTC1CK-106Z	TA E CAPACITOR	10uF 16V K	
C3082	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C3086	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C3088	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C3089	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C3090	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C3099	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3100	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3501	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3502	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C3503	NDC31HJ-121X	C CAPACITOR	120pF 50V J	
C3504	NDC31HJ-150X	C CAPACITOR	15pF 50V J	
C3506	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z	
C3507	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3508	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C3509	NDC31HJ-121X	C CAPACITOR	120pF 50V J	

⚠Ref No.	Part No.	Part Name	Description Local
C3510	NDC31HJ-150X	C CAPACITOR	15pF 50V J
C3512	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z
C3513	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C3514	NDC31HJ-101X	C CAPACITOR	100pF 50V J
C3515	NDC31HJ-121X	C CAPACITOR	120pF 50V J
C3516	NDC31HJ-150X	C CAPACITOR	15pF 50V J
C3518	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z
C3519	QENC1CM-336Z	BP E CAPACITOR	33uF 16V M
C3520	QENC1CM-336Z	BP E CAPACITOR	33uF 16V M
C3521	QENC1CM-336Z	BP E CAPACITOR	33uF 16V M
R1202	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1203	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1218	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R1219	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R1220	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1221	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1226	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1228	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1229	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R1230	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1231	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1232	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1234	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1236	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1301	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1302	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1321	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R1322	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R1323	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R1351	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1352	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1353	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1372	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1374	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1375	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1376	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1377	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1382	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1384	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1385	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1386	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1387	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1392	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1394	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1395	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1396	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1397	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R2322	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R2325	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R2328	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R3001	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R3002	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R3003	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3004	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R3005	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R3006	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R3007	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R3008	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3009	NRSA63D-102X	MG RESISTOR	1kΩ 1/16W D
R3010	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R3011	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3012	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R3013	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R3014	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3015	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R3016	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R3017	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R3018	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R3019	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3020	NRSA63D-102X	MG RESISTOR	1kΩ 1/16W D
R3021	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R3022	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3023	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R3024	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R3025	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R3026	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R3027	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R3028	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R3029	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R3030	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R3031	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3032	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3033	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3035	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3036	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3037	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J

⚠Ref No.	Part No.	Part Name	Description Local
R3039	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3040	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3042	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R3043	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3044	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3045	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3047	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R3048	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R3049	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R3050	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R3051	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R3052	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R3053	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R3054	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R3055	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R3056	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
R3057	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
R3058	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R3059	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R3060	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
R3061	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3062	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3063	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3064	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3065	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3066	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3071	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3072	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3073	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3074	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3075	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3076	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3077	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3078	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3079	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3080	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3081	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3082	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3501	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3502	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3503	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
R3504	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R3505	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R3507	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3508	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3509	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R3511	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3516	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R3517	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3518	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3519	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
R3520	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R3521	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R3523	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3525	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R3532	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R3533	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3534	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3535	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
R3536	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R3537	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R3539	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3541	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R3548	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R3549	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R3550	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R3551	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3552	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R3553	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R3554	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R3555	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
RA3001	NRZ0040-103X	NET RESISTOR	10kΩ 1/16W J x4
RA3002	NRZ0040-103X	NET RESISTOR	10kΩ 1/16W J x4
RA3003	NRZ0040-103X	NET RESISTOR	10kΩ 1/16W J x4
RA3004	NRZ0040-103X	NET RESISTOR	10kΩ 1/16W J x4
L1211	QQL25CK-100Z	COIL	10uH K
L1301	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
L1302	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
L3001	NQL092K-6R8X	P COIL	6.8uH K
L3002	NQL092K-6R8X	P COIL	6.8uH K
L3003	NQR0413-003X	FERRITE BEADS	
L3004	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
L3005	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
L3006	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
L3007	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
L3501	NQL092K-6R8X	P COIL	6.8uH K

⚠Ref No.	Part No.	Part Name	Description Local
L3502	NQL092K-6R8X	P COIL	6.8uH K
L3503	NQL092K-6R8X	P COIL	6.8uH K
CN100H	QGF0508C1-30W	CONNECTOR	FFC/FPC (1-30)
CN100N	QGA1501C2-04V	CONNECTOR	W-B (1-4)
CN10AQ	QGA2001C2-09V	CONNECTOR	W-B (1-9)
J2121	QNN0584-001	PIN JACK	COMPONENT IN
K3001	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
LC3001	NQR0450-002X	EMI FILTER	22pF 50V M
LC3002	NQR0450-002X	EMI FILTER	22pF 50V M
LC3003	NQR0415-005X	EMI FILTER	0.1uF 25V M
LC3004	NQR0450-004X	EMI FILTER	100pF 50V M
LC3005	NQR0450-002X	EMI FILTER	22pF 50V M
LC3006	NQR0450-004X	EMI FILTER	100pF 50V M
LC3007	NQR0450-002X	EMI FILTER	22pF 50V M
LC3008	NQR0450-002X	EMI FILTER	22pF 50V M
LC3501	NQR0450-004X	EMI FILTER	100pF 50V M
LC3502	NQR0450-004X	EMI FILTER	100pF 50V M
LC3503	NQR0450-004X	EMI FILTER	100pF 50V M
SL1211	CSB503F30	C RESONATOR	
X3001	NAX0570-001X	CRYSTAL	27.000MHz

POWER P.W.BOARD ASSY (LCA90149-07F) (SSB-9091A)

⚠Ref No.	Part No.	Part Name	Description Local
⚠IC9211	MC33262D-X	IC	
⚠IC9501	STR-F6268S-F3	IC	
⚠IC9541	SE015N-LF12	IC	
IC9901	SI-8033S/F1	IC	
IC9902	PQ1CG2032FZ	IC	
Q9021	UN2211-X	TRANSISTOR	
Q9211	2SK2196	POWER MOS FET	
Q9212	2SC3928A/QR/-X	TRANSISTOR	
Q9213	IMD3A-W	DIGI TRANSISTOR	
Q9215	2SC3928A/QR/-X	TRANSISTOR	
Q9502	2SC3928A/QR/-X	TRANSISTOR	
Q9541	UN2213-X	DIGI TRANSISTOR	
Q9901	2SC3928A/QR/-X	TRANSISTOR	
Q9902	2SC3928A/QR/-X	TRANSISTOR	
Q9903	UN2213-X	DIGI TRANSISTOR	
Q9904	2SC3928A/QR/-X	TRANSISTOR	
Q9905	2SC3928A/QR/-X	TRANSISTOR	
Q9906	UN2213-X	DIGI TRANSISTOR	
D9001	MA3047/H/-X	Z DIODE	
D9021	MA111-X	SI DIODE	
D9111	S1WB/A/60-4101	BRIDGE DIODE	
⚠D9201	D25XB60	BRIDGE DIODE	
D9202	MA111-X	SI DIODE	
D9211	D5L60	SI DIODE	
D9213	MA111-X	SI DIODE	
D9214	MA111-X	SI DIODE	
D9501	RD12E/B2/-T5	Z DIODE	
D9502	RD33E/B/-T5	Z DIODE	
D9503	RD5.1E/B2/-T5	Z DIODE	
D9504	SARS01-T2	SI DIODE	
D9505	SARS01-T2	SI DIODE	
D9506	D1FL20U-X	SI DIODE	
D9507	PG104RS-T2	FR DIODE	
D9509	D1FS4-X	SB DIODE	
D9510	D1FS4-X	SB DIODE	
D9511	MA111-X	SI DIODE	
D9513	MA111-X	SI DIODE	
D9541	FME-220A	SB DIODE	
D9542	EU2-T3	SI DIODE	
D9543	FME-220A	SB DIODE	
D9544	FME-220A	SB DIODE	
D9545	RD16E/B/-T5	Z DIODE	
D9546	RD16E/B/-T5	Z DIODE	
D9901	RK44-LFT4	SB DIODE	
D9902	MA111-X	SI DIODE	
D9903	EC30HA03L-X	SB DIODE	
D9904	MA111-X	SI DIODE	
D9905	PTZ16B-X	Z DIODE	
⚠C9001	QFZ9075-225	MPP CAPACITOR	2.2uF AC275V M
⚠C9002	QFZ9075-105	MPP CAPACITOR	1uF AC275V M
⚠C9011	QCZ9079-102	C CAPACITOR	1000pF AC250V M
⚠C9013	QCZ9079-102	C CAPACITOR	1000pF AC250V M
⚠C9101	QCZ9082-472Z	C CAPACITOR	4700pF AC250V M
⚠C9102	QCZ9082-472Z	C CAPACITOR	4700pF AC250V M
⚠C9103	QCZ9082-472Z	C CAPACITOR	4700pF AC250V M
C9111	QEHQ2GM-226	E CAPACITOR	22uF 400V M
C9141	QTMN1CM-477Z	E CAPACITOR	470uF 16V M
C9142	QEHR1AM-337Z	E CAPACITOR	330uF 10V M
C9143	QEHR1CM-107Z	E CAPACITOR	100uF 16V M
⚠C9197	QCZ9079-102	C CAPACITOR	1000pF AC250V M
⚠C9198	QCZ9079-222	C CAPACITOR	2200pF AC250V M
⚠C9201	QCZ9082-222Z	C CAPACITOR	2200pF AC250V M
⚠C9203	QCZ9082-222Z	C CAPACITOR	2200pF AC250V M
⚠C9204	QCZ9082-222Z	C CAPACITOR	2200pF AC250V M
⚠C9205	QCZ9082-222Z	C CAPACITOR	2200pF AC250V M
C9211	QFZ0128-474	MPP CAPACITOR	0.47uF DC400V H
C9212	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C9213	NCB21CK-684X	C CAPACITOR	0.68uF 16V K
C9214	NDC31HJ-102X	C CAPACITOR	1000pF 50V J
C9215	QEHR1VM-476Z	E CAPACITOR	47uF 35V M
C9216	QEZ0650-227	E CAPACITOR	220uF 450V M
C9218	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C9501	NCB31EK-104X	C CAPACITOR	0.1uF 25V K
C9502	NDC31HJ-221X	C CAPACITOR	220pF 50V J
C9503	QFP32JK-332	PP CAPACITOR	3300pF 630V K
C9504	QFP32JK-332	PP CAPACITOR	3300pF 630V K
C9505	QCZ0354-331Z	C CAPACITOR	330pF 2kV K
C9506	QCZ0354-331Z	C CAPACITOR	330pF 2kV K
C9508	NDC31HJ-471X	C CAPACITOR	470pF 50V J
C9509	QEHR1HM-476Z	E CAPACITOR	47uF 50V M
C9510	QEHR1HM-107Z	E CAPACITOR	100uF 50V M
C9511	QEHR1HM-475Z	E CAPACITOR	4.7uF 50V M
C9512	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C9541	QCZ0354-681Z	C CAPACITOR	680pF 2kV K
C9543	QECR1EM-687Z	E CAPACITOR	680uF 25V M
C9544	QECR1EM-687Z	E CAPACITOR	680uF 25V M
C9545	QEHR2AM-106Z	E CAPACITOR	10uF 100V M
C9546	QCZ0354-681Z	C CAPACITOR	680pF 2kV K
C9547	QCZ0354-681Z	C CAPACITOR	680pF 2kV K
C9548	QECQ1EM-188	E CAPACITOR	1800uF 25V M
C9549	QECQ1EM-188	E CAPACITOR	1800uF 25V M
C9550	QECQ1EM-188	E CAPACITOR	1800uF 25V M
C9551	QECQ1EM-188	E CAPACITOR	1800uF 25V M
C9552	QEHR1HM-106Z	E CAPACITOR	10uF 50V M
C9553	QEHR1HM-107Z	E CAPACITOR	100uF 50V M
C9554	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C9901	NBZ0017-106X	SP E CAPACITOR	10uF 25V M
C9903	QECR1AM-128Z	E CAPACITOR	1200uF 10V M
C9905	NBZ0017-106X	SP E CAPACITOR	10uF 25V M
C9906	QEZ0255-128	E CAPACITOR	1200uF 16V M
C9908	NCB31EK-104X	C CAPACITOR	0.1uF 25V K
C9910	QEHR1HM-476Z	E CAPACITOR	47uF 50V M
C9911	QEZ0256-128	E CAPACITOR	1200uF 10V M
C9912	QECR1CM-477Z	E CAPACITOR	470uF 16V M
⚠R9001	QRZ9046-105Z	C RESISTOR	1MΩ 1/2W K
R9003	QRE121J-473Y	C RESISTOR	47kΩ 1/2W J
R9004	QRE121J-473Y	C RESISTOR	47kΩ 1/2W J
R9101	QRZ0216-4R7	UNF WW RESISTOR	4.7Ω 7W K
R9148	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
⚠R9199	QRZ9046-685Z	C RESISTOR	6.8MΩ 1/2W K
R9201	QRZ0121-200	UNF WW RESISTOR	20Ω 5W J
R9203	QRL01EJ-561X	OMF RESISTOR	560Ω 1W J
R9211	NRS12BJ-474W	MG RESISTOR	470kΩ 1/2W J
R9212	NRS12BJ-474W	MG RESISTOR	470kΩ 1/2W J
R9213	NRS12BJ-334W	MG RESISTOR	330kΩ 1/2W J
R9214	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R9215	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R9216	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R9217	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R9218	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D
R9219	NRS12BJ-223W	MG RESISTOR	22kΩ 1/2W J
R9220	QRM059J-R15	MP RESISTOR	0.15Ω 5W J
R9221	QRM059J-R27	MP RESISTOR	0.27Ω 5W J
R9222	NRS12BJ-334W	MG RESISTOR	330kΩ 1/2W J
R9223	NRS12BJ-334W	MG RESISTOR	330kΩ 1/2W J
R9224	NRS12BJ-394W	MG RESISTOR	390kΩ 1/2W J
R9225	NRS12BJ-334W	MG RESISTOR	330kΩ 1/2W J
R9226	NRS12BJ-334W	MG RESISTOR	330kΩ 1/2W J
R9227	NRS12BJ-394W	MG RESISTOR	390kΩ 1/2W J
R9228	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R9233	NRS12BJ-474W	MG RESISTOR	470kΩ 1/2W J
R9236	NRS12BJ-474W	MG RESISTOR	470kΩ 1/2W J
R9237	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R9501	QRL03EJ-333X	OMF RESISTOR	33kΩ 3W J
R9502	QRL03EJ-333X	OMF RESISTOR	33kΩ 3W J
R9503	NRS12BJ-224W	MG RESISTOR	220kΩ 1/2W J
R9504	NRS12BJ-224W	MG RESISTOR	220kΩ 1/2W J
R9505	QRL03EJ-220X	OMF RESISTOR	22Ω 3W J
R9506	QRL03EJ-220X	OMF RESISTOR	22Ω 3W J

⚠Ref No.	Part No.	Part Name	Description Local
R9507	QRM059J-R15	MP RESISTOR	0.15Ω 5W J
R9508	QRT02EJ-1R5X	MF RESISTOR	1.5Ω 2W J
⚠R9509	QRZ9009-1R5	FUSI RESISTOR	1.5Ω 1/2W J
R9512	QRK126J-152X	UNF C RESISTOR	1.5kΩ 1/2W J
R9513	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R9514	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J
R9515	QRK126J-221X	UNF C RESISTOR	220Ω 1/2W J
R9516	NRS12BJ-332W	MG RESISTOR	3.3kΩ 1/2W J
R9517	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R9518	NRS12BJ-100W	MG RESISTOR	10Ω 1/2W J
R9519	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R9541	QRL02EJ-152X	OMF RESISTOR	1.5kΩ 2W J
R9542	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R9544	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R9545	QRL02EJ-331X	OMF RESISTOR	330Ω 2W J
R9546	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R9626	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R9902	NRS12BJ-220W	MG RESISTOR	22Ω 1/2W J
R9903	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R9905	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R9906	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R9907	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R9908	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R9909	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R9910	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R9911	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R9912	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R9913	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R9915	NRSA63D-102X	MG RESISTOR	1kΩ 1/16W D
R9916	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D
R9918	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R9919	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R9920	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R9921	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R9922	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R9923	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
L9141	NQL52EN-4R7X	COIL	4.7uH N
L9201	QQR1399-001	CHOKE COIL	
L9541	NQL52EM-220X	COIL	22uH M
L9902	QQR1401-001	CHOKE COIL	
L9904	NQL63EM-470X	COIL	47uH M
L9905	NQL80CL-100X	COIL	10uH L
⚠T9121	QAL0515-001	POWER TRANSF	
⚠T9541	QQS0222-001	SW TRANSF	
CN0001	QGB2501J1-13	CONNECTOR	B-B (1-13)
CN000A	QGA2001C2-13V	CONNECTOR	W-B (1-13)
CN000B	QGA1501C2-13V	CONNECTOR	W-B (1-13)
CN000F	QGA2001C2-04V	CONNECTOR	W-B (1-4)
CN000G	QGA1501C2-10V	CONNECTOR	W-B (1-10)
CN000P	QGA1201C2-15X	CONNECTOR	W-B (1-15)
CN000Q	QGA1201C2-15X	CONNECTOR	W-B (1-15)
CN000Y	QGA2001C2-02V	CONNECTOR	W-B (1-2)
CN000Z	QGA2001C2-02V	CONNECTOR	W-B (1-2)
CN00E1	CE41507-001P	LV CONNECTOR	
CN00PW	QGA7901C1-02	CONNECTOR	W-B (1-2)
⚠CP9121	QMFZ043-2R0Z-J1	FUSE	2A AC250V
⚠CP9211	QMFZ043-5R0Z-J1	FUSE	5A AC250V
⚠F9001	QMF51D2-6R3-J1	FUSE	6.3A AC250V
H9211	LC32378-001A	HEAT SINK/AL-F/	
H9541	LC32377-001A	HEAT SINK/AL-F/	
H9901	CM42862-A0A	HEAT SINK ASSY	
H9902	LC31334-002A	HEAT SINK/AL-F/	
K9001	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
K9501	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
K9502	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
K9503	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
K9504	QQR0621-002Z	FERRITE BEADS	
K9505	QQR0621-002Z	FERRITE BEADS	
K9541	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
K9542	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
K9543	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
K9544	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
K9545	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
K9901	NQR0413-003X	FERRITE BEADS	
⚠LF9001	QQR1281-004	LINE FILTER	
⚠LF9002	QQR1281-004	LINE FILTER	
⚠LF9003	QQR1376-001	LINE FILTER	
⚠PC9001	PC123Y22FZ	PHOTO COUPLER	
⚠PC9541	PC123Y22FZ	PHOTO COUPLER	
⚠PC9542	PC123Y22FZ	PHOTO COUPLER	
⚠RY9021	QSK0119-001	RELAY	
⚠RY9201	QSK0117-001	RELAY	
⚠VA9001	ERZV10V621CS	ZNR	

REGULATOR P.W.BOARD ASSY (LCA90150-07D) (SSB-9191A)

⚠Ref No.	Part No.	Part Name	Description Local
IC9801	SI-8090JD-W	IC	
IC9802	SI-8050JD-W	IC	
IC9803	PQ1CY1032Z-W	IC	
Q9801	2SC3928A/QR/-X	TRANSISTOR	
Q9802	2SC3928A/QR/-X	TRANSISTOR	
Q9803	2SC3928A/QR/-X	TRANSISTOR	
Q9804	2SC3928A/QR/-X	TRANSISTOR	
Q9805	UN2213-X	DIGI TRANSISTOR	
D9801	EC30HA03L-X	SB DIODE	
D9802	MA111-X	SI DIODE	
D9803	EC30HA03L-X	SB DIODE	
D9804	MA111-X	SI DIODE	
D9805	MA3030/H/-X	Z DIODE	
D9806	EC30HA03L-X	SB DIODE	
D9807	PTZ16B-X	Z DIODE	
D9808	MA111-X	SI DIODE	
D9809	PTZ11B-X	Z DIODE	
D9810	PTZ6.8B-X	Z DIODE	
C9801	NBZ0017-106X	SP E CAPACITOR	10uF 25V M
C9803	NBZ0010-396X	SP E CAPACITOR	39uF 16V M
C9805	NBZ0017-106X	SP E CAPACITOR	10uF 25V M
C9807	NBZ0010-396X	SP E CAPACITOR	39uF 16V M
C9809	NEH91HM-105X	E CAPACITOR	1uF 50V M
C9810	NBZ0017-106X	SP E CAPACITOR	10uF 25V M
C9811	NBZ0010-396X	SP E CAPACITOR	39uF 16V M
C9813	NCB31HK-473X	C CAPACITOR	0.047uF 50V K
C9814	NEH91CM-476X	E CAPACITOR	47uF 16V M
C9815	NEH91CM-476X	E CAPACITOR	47uF 16V M
C9816	NEH90JM-107X	E CAPACITOR	100uF 6.3V M
C9817	NEH91CM-476X	E CAPACITOR	47uF 16V M
R9801	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R9802	NRS12BJ-6R8W	MG RESISTOR	6.8Ω 1/2W J
R9803	NRSA63D-152X	MG RESISTOR	1.5kΩ 1/16W D
R9804	NRSA63D-152X	MG RESISTOR	1.5kΩ 1/16W D
R9807	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R9808	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R9809	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R9810	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R9811	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R9812	NRS12BJ-220W	MG RESISTOR	22Ω 1/2W J
R9813	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R9815	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R9816	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R9817	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
R9818	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R9819	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R9820	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R9821	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R9823	NRSA63D-182X	MG RESISTOR	1.8kΩ 1/16W D
R9824	NRSA63D-153X	MG RESISTOR	15kΩ 1/16W D
R9825	NRSA63D-473X	MG RESISTOR	47kΩ 1/16W D
R9826	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R9827	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R9828	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R9829	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R9830	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R9831	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
L9802	NQL63EM-101X	COIL	100uH M
L9804	NQL63EM-101X	COIL	100uH M
L9806	NQL63EM-101X	COIL	100uH M
L9807	NQL80CL-100X	COIL	10uH L
CN1001	QGB2501K2-13	CONNECTOR	B-B (1-13)
K9801	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
K9802	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
K9803	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J

RECEIVER P.W.BOARD ASSY (LCA90182-01B) (SSB-0J086A)

⚠Ref No.	Part No.	Part Name	Description	Local
IC1101	M62320FP-X	IC		
IC1102	CXA2134Q-X	IC		
IC1501	CXA2069Q	IC		
IC6101	AN77L12-T	IC		
IC6401	TA8119P	IC		
IC6501	NJW1137M-W	IC		
IC6531	RC4558D-X	IC		
IC6551	RC4558D-X	IC		
IC6641	TA2024ASE-X	IC		
IC6701	M62320FP-X	IC		
Q1101	2SC3928A/QR/-X	TRANSISTOR		
Q1102	2SA1530A/QR/-X	SI TRANSISTOR		
Q1103	2SC3928A/QR/-X	TRANSISTOR		
Q2251	KTA1267/YG/-T	TRANSISTOR		
Q2252	KTA1267/YG/-T	TRANSISTOR		
Q2253	KTA1267/YG/-T	TRANSISTOR		
Q2254	UN2226-X	DIGI TRANSISTOR		
Q2255	UN2226-X	DIGI TRANSISTOR		
Q2256	UN2110-X	DIGI TRANSISTOR		
Q2260	2SA1530A/QR/-X	SI TRANSISTOR		
Q6401	UN2110-X	DIGI TRANSISTOR		
Q6402	UN2226-X	DIGI TRANSISTOR		
Q6504	2SC3928A/QR/-X	TRANSISTOR		
Q6505	2SC3928A/QR/-X	TRANSISTOR		
Q6506	2SA1530A/QR/-X	SI TRANSISTOR		
Q6551	2SC3928A/QR/-X	TRANSISTOR		
Q6552	2SC3928A/QR/-X	TRANSISTOR		
Q6581	2SC3928A/QR/-X	TRANSISTOR		
Q6582	2SA1530A/QR/-X	SI TRANSISTOR		
Q6591	DTC323TK-X	DIGI TRANSISTOR		
Q6592	DTC323TK-X	DIGI TRANSISTOR		
Q6593	2SA1530A/QR/-X	SI TRANSISTOR		
Q6601	2SC3928A/QR/-X	TRANSISTOR		
Q6702	2SA1530A/QR/-X	SI TRANSISTOR		
Q6703	2SC3928A/QR/-X	TRANSISTOR		
Q6704	2SC3928A/QR/-X	TRANSISTOR		
Q6705	2SA1530A/QR/-X	SI TRANSISTOR		
D2101	MA8100/M/-X	Z DIODE		
D2121	MA8100/M/-X	Z DIODE		
D2201	MA8100/M/-X	Z DIODE		
D2204	MA8100/M/-X	Z DIODE		
D2205	MA8100/M/-X	Z DIODE		
D2206	MA8100/M/-X	Z DIODE		
D2209	MA8100/M/-X	Z DIODE		
D2210	MA8100/M/-X	Z DIODE		
D2212	MA8100/M/-X	Z DIODE		
D2213	MA8100/M/-X	Z DIODE		
D2215	MA8100/M/-X	Z DIODE		
D2216	MA8100/M/-X	Z DIODE		
D2217	MA8100/M/-X	Z DIODE		
D2218	MA8100/M/-X	Z DIODE		
D2219	MA8100/M/-X	Z DIODE		
D2251	MA8100/M/-X	Z DIODE		
D2252	MA8100/M/-X	Z DIODE		
D2253	MA8100/M/-X	Z DIODE		
D2258	MA111-X	SI DIODE		
D2259	MA111-X	SI DIODE		
D6401	1SR35-400A-T2	SI DIODE		
D6541	MA8062/M/-X	Z DIODE		
D6561	MA111-X	SI DIODE		
D6562	MA111-X	SI DIODE		
D6571	MA111-X	SI DIODE		
D6572	MA111-X	SI DIODE		
D6573	MA111-X	SI DIODE		
D6574	MA111-X	SI DIODE		
D6581	MA111-X	SI DIODE		
D6582	MA111-X	SI DIODE		
D6583	MA111-X	SI DIODE		
D6584	MA111-X	SI DIODE		
D6585	MA111-X	SI DIODE		
D6641	D1FS4-X	SB DIODE		
D6642	D1FS4-X	SB DIODE		
D6643	D1FS4-X	SB DIODE		
D6644	D1FS4-X	SB DIODE		
D6701	MA111-X	SI DIODE		
D6702	MA111-X	SI DIODE		
C1102	QETN1CM-477Z	E CAPACITOR	470uF 16V	M
C1103	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1109	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C1110	NCF31CZ-104X	C CAPACITOR	0.1uF 16V	Z
C1118	NDC31HJ-221X	C CAPACITOR	220pF 50V	J
C1119	NDC31HJ-221X	C CAPACITOR	220pF 50V	J
C1141	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V	M
C1142	NCB31EK-104X	C CAPACITOR	0.1uF 25V	K
C1143	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V	M
C1144	NCB31HK-562X	C CAPACITOR	5600pF 50V	K
C1145	NCB31HK-123X	C CAPACITOR	0.012uF 50V	K
C1146	QETN1HM-105Z	E CAPACITOR	1uF 50V	M
C1147	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1148	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1149	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1150	QETN1CM-107Z	E CAPACITOR	100uF 16V	M
C1151	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V	M
C1152	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1153	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V	M
C1154	NCB31HK-272X	C CAPACITOR	2700pF 50V	K
C1155	NCB31HK-473X	C CAPACITOR	0.047uF 50V	K
C1156	QETN1HM-335Z	E CAPACITOR	3.3uF 50V	M
C1157	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V	M
C1158	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1159	QETN1HM-105Z	E CAPACITOR	1uF 50V	M
C1160	NCF31CZ-104X	C CAPACITOR	0.1uF 16V	Z
C1161	NCF31CZ-104X	C CAPACITOR	0.1uF 16V	Z
C1162	NCF31CZ-104X	C CAPACITOR	0.1uF 16V	Z
C1163	NCF31CZ-104X	C CAPACITOR	0.1uF 16V	Z
C1164	NCB31HK-223X	C CAPACITOR	0.022uF 50V	K
C1165	NCB31HK-472X	C CAPACITOR	4700pF 50V	K
C1166	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V	M
C1167	NCB31EK-104X	C CAPACITOR	0.1uF 25V	K
C1168	NCB31HK-472X	C CAPACITOR	4700pF 50V	K
C1170	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C1171	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C1505	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1506	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1507	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1508	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1510	QENC1CM-106Z	BP E CAPACITOR	10uF 16V	M
C1522	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V	M
C1532	QETN1HM-226Z	E CAPACITOR	22uF 50V	M
C1535	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1536	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1537	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1538	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1539	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1540	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1541	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1591	QETN1CM-477Z	E CAPACITOR	470uF 16V	M
C1593	QETN0JM-108Z	E CAPACITOR	1000uF 6.3V	M
C2102	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C2103	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C2104	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C2105	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C2106	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C2123	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C2124	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C2125	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C2127	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C2128	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C2144	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C2145	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C2146	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C2251	QETN1HM-105Z	E CAPACITOR	1uF 50V	M
C2252	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C2253	QETN1AM-108Z	E CAPACITOR	1000uF 10V	M
C2254	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C2255	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C2256	NCB21CK-105X	C CAPACITOR	1uF 16V	K
C2257	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C2261	NCB11CK-225X	C CAPACITOR	2.2uF 16V	K
C2262	QETN1AM-108Z	E CAPACITOR	1000uF 10V	M
C2263	QETN1EM-476Z	E CAPACITOR	47uF 25V	M
C6101	QETN1EM-476Z	E CAPACITOR	47uF 25V	M
C6102	NCF31CZ-104X	C CAPACITOR	0.1uF 16V	Z
C6103	QETN1EM-476Z	E CAPACITOR	47uF 25V	M
C6104	NCB31HK-102X	C CAPACITOR	1000pF 50V	K
C6401	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C6402	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C6403	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C6404	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C6405	QETN1AM-227Z	E CAPACITOR	220uF 10V	M
C6406	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C6407	QETN1AM-227Z	E CAPACITOR	220uF 10V	M
C6408	QETN1AM-227Z	E CAPACITOR	220uF 10V	M
C6409	QETN1HM-105Z	E CAPACITOR	1uF 50V	M
C6410	QETN1HM-105Z	E CAPACITOR	1uF 50V	M
C6503	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C6504	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M

⚠Ref No.	Part No.	Part Name	Description Local
C6505	NCB31HK-332X	C CAPACITOR	3300pF 50V K
C6506	NCB31HK-332X	C CAPACITOR	3300pF 50V K
C6507	NCB31HK-333X	C CAPACITOR	0.033uF 50V K
C6508	NCB31HK-333X	C CAPACITOR	0.033uF 50V K
C6509	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C6510	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C6511	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6512	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6513	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C6514	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C6515	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C6516	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6517	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C6518	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C6519	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C6520	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C6521	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6522	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C6523	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C6531	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C6532	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C6533	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C6534	NDC31HJ-100X	C CAPACITOR	10pF 50V J
C6535	NDC31HJ-100X	C CAPACITOR	10pF 50V J
C6541	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C6551	NCB31CK-683X	C CAPACITOR	0.068uF 16V K
C6552	NCB31CK-683X	C CAPACITOR	0.068uF 16V K
C6553	NCB31CK-683X	C CAPACITOR	0.068uF 16V K
C6554	NCB31CK-683X	C CAPACITOR	0.068uF 16V K
C6555	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C6556	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C6557	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C6561	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C6563	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C6571	NCB11EK-105X	C CAPACITOR	1uF 25V K
C6572	NCB11EK-105X	C CAPACITOR	1uF 25V K
C6573	NCB11EK-105X	C CAPACITOR	1uF 25V K
C6574	NCB11EK-105X	C CAPACITOR	1uF 25V K
C6575	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6576	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6577	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6578	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6581	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C6582	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C6583	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C6591	NDC31HJ-101X	C CAPACITOR	100pF 50V J
C6592	NDC31HJ-101X	C CAPACITOR	100pF 50V J
C6593	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C6602	QETN1EM-227Z	E CAPACITOR	220uF 25V M
C6603	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6604	QETN1EM-227Z	E CAPACITOR	220uF 25V M
C6605	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6606	NCB11EK-105X	C CAPACITOR	1uF 25V K
C6607	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6608	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6610	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6611	NCB11EK-105X	C CAPACITOR	1uF 25V K
C6612	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6613	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6614	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6621	NCB11EK-105X	C CAPACITOR	1uF 25V K
C6622	NCB11EK-105X	C CAPACITOR	1uF 25V K
C6623	NDC31HJ-121X	C CAPACITOR	120pF 50V J
C6624	NDC31HJ-121X	C CAPACITOR	120pF 50V J
C6641	NCB21EK-224X	C CAPACITOR	0.22uF 25V K
C6642	NCB21EK-224X	C CAPACITOR	0.22uF 25V K
C6643	NCB21EK-224X	C CAPACITOR	0.22uF 25V K
C6644	NCB21EK-224X	C CAPACITOR	0.22uF 25V K
C6645	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C6646	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C6647	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6648	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6701	NCB11CK-225X	C CAPACITOR	2.2uF 16V K
C6702	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C6704	NCB11EK-105X	C CAPACITOR	1uF 25V K
C6705	QETN1HM-106Z	E CAPACITOR	10uF 50V M
R1102	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1103	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1107	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R1111	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1112	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1120	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1126	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1131	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1132	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R1133	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1141	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R1144	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1145	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1146	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J
R1147	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1148	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R1149	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1150	NRSA63F-623X	MG RESISTOR	62kΩ 1/16W F
R1152	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R1154	NRSA63J-302X	MG RESISTOR	3kΩ 1/16W J
R1155	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R1501	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1502	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1503	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1504	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1505	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1506	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1511	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1514	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1515	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1516	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1517	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1518	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1519	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1520	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1521	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1522	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1523	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1524	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1525	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1526	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1527	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1528	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1529	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1530	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1533	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1534	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1536	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1551	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1552	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1553	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1555	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1557	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1574	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R2102	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R2103	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R2104	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R2105	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R2106	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R2122	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R2123	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R2125	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R2126	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R2127	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R2144	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R2145	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R2146	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R2251	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R2252	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R2253	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R2254	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R2255	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R2259	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R2261	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R2262	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R2263	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R2264	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R2265	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R2268	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R2269	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R2270	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R2273	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R2274	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R2275	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R2276	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R2277	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R2278	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J
R2281	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R2282	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R2283	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R2284	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R2286	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R2288	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R6101	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R6102	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R6103	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R6104	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J

⚠Ref No.	Part No.	Part Name	Description Local
R6105	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R6106	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R6107	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R6108	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R6401	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6402	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6403	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R6404	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R6406	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R6407	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6408	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R6409	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R6508	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R6509	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R6510	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R6511	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R6512	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R6513	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R6514	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R6515	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R6517	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R6518	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6531	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R6532	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R6533	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6534	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6535	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R6536	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R6541	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R6551	NRSA63J-184X	MG RESISTOR	180kΩ 1/16W J
R6552	NRSA63J-184X	MG RESISTOR	180kΩ 1/16W J
R6553	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R6554	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R6555	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R6556	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R6557	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R6558	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R6559	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6560	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6561	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J
R6562	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R6563	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R6564	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R6565	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R6571	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
R6572	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
R6573	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
R6574	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
R6575	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R6576	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R6577	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R6578	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R6579	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R6581	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R6582	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R6583	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R6584	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R6585	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R6586	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R6587	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R6588	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R6591	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R6592	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R6593	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R6594	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R6597	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6601	NRSA63D-822X	MG RESISTOR	8.2kΩ 1/16W D
R6604	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6606	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6621	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
R6622	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
R6623	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R6624	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R6641	QRK126J-100X	UNF C RESISTOR	10Ω 1/2W J
R6642	QRK126J-100X	UNF C RESISTOR	10Ω 1/2W J
R6701	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R6702	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R6703	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R6704	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R6705	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R6706	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6708	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R6709	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R6710	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R6723	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6724	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6725	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6727	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J
R6728	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6729	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R6730	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R6731	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6732	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R6733	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R6734	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R6735	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
L1102	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
L1591	QQL26AK-330Z	COIL	33uH K
L1593	QQL26AK-220Z	COIL	22uH K
L6641	QQL28AM-100	COIL	10uH M
L6642	QQL28AM-100	COIL	10uH M
L6643	QQL28AM-100	COIL	10uH M
L6644	QQL28AM-100	COIL	10uH M
CN000F	QGA2001C2-04V	CONNECTOR	W-B (1-4)
CN000G	QGA1501C2-10V	CONNECTOR	W-B (1-10)
CN000J	QGA1501C2-11V	CONNECTOR	W-B (1-11)
CN000K	QGA1501C2-07V	CONNECTOR	W-B (1-7)
CN000N	QGA1501C2-04V	CONNECTOR	W-B (1-4)
CN000S	QGA2501C5-06Z	CONNECTOR	W-B (1-6)
CN000U	QGA1501C2-04V	CONNECTOR	W-B (1-4)
CN00AU	QGA2001C2-03V	CONNECTOR	W-B (1-3)
CN00E1	QUB130-16EPFX	SIN TWIST WIRE	
J2001	QND0102-001	S JACK	INPUT-1 S IN
J2002	QNN0370-001	PIN JACK	INPUT-1 V/L/R IN
J2011	QND0102-001	S JACK	INPUT-2 S IN
J2012	QNN0370-001	PIN JACK	INPUT-2 V/L/R IN
J2021	QNN0370-001	PIN JACK	COMPONENT IN
J2031	QND0102-001	S JACK	S OUT
J2032	QNN0370-001	PIN JACK	V/L/R OUT
K6101	NQR0413-002X	FERRITE BEADS	
K6591	NQR0413-002X	FERRITE BEADS	
K6592	NQR0413-002X	FERRITE BEADS	
K6641	NQR0413-002X	FERRITE BEADS	
K6642	NQR0413-002X	FERRITE BEADS	
K6643	NQR0413-002X	FERRITE BEADS	
K6644	NQR0413-002X	FERRITE BEADS	
⚠TU1101	QAU0322-001	TUNER	

FRONT SENSOR P.W.BOARD ASSY (LCA90155-03B) (SSB-0L286A)

⚠Ref No.	Part No.	Part Name	Description Local
IC8752	GP1UM281QK	IR DETECT UNIT	38kHz
C8752	QEKJ1CM-476Z	E CAPACITOR	47uF 16V M
R8756	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R8757	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R8759	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
CN8003	QGB2542J1-08	CONNECTOR	B-B (1-8)

FRONT CONTROL P.W.BOARD ASSY (LCA90154-03D) (SSB-0L386A)

⚠Ref No.	Part No.	Part Name	Description Local
Q8701	UN2212-X	TRANSISTOR	
Q8702	UN2212-X	TRANSISTOR	
Q8703	2SC3928A/QR/-X	TRANSISTOR	
D6411	MA8062/M/-X	Z DIODE	
D6412	MA8062/M/-X	Z DIODE	
D6413	MA8062/M/-X	Z DIODE	
D8702	LDBK22440-T16	LED	POWER
C6411	QETN1AM-227Z	E CAPACITOR	220uF 10V M
C6412	QETN1AM-227Z	E CAPACITOR	220uF 10V M
C6413	NDC31HJ-102X	C CAPACITOR	1000pF 50V J
C6414	NDC31HJ-102X	C CAPACITOR	1000pF 50V J
R6411	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J
R6412	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J

⚠Ref No.	Part No.	Part Name	Description	Local
R6413	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J	
R6414	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J	
R6415	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R6416	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R6417	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R8701	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R8702	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R8703	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R8704	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R8712	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R8713	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R8714	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
CN3003	QGB2542K1-08	CONNECTOR	B-B (1-8)	
CN300T	QGA1501C2-10V	CONNECTOR	W-B (1-10)	
CN300U	QGA1501C2-04V	CONNECTOR	W-B (1-4)	
J6401	QMS3004-C01	HEADPHONE JACK	HEADPHONE	
S8701	QSW0797-001	TACT SWITCH	VOL+	
S8702	QSW0797-001	TACT SWITCH	VOL-	
S8703	QSW0797-001	TACT SWITCH	CH+	
S8704	QSW0797-001	TACT SWITCH	CH-	
S8705	QSW0797-001	TACT SWITCH	INPUT	
S8706	QSW0797-001	TACT SWITCH	MENU	
S8707	QSW0797-001	TACT SWITCH	POWER	

MI-COM & DIST MODULE P.W.BOARD (LCA10291-04G) (SSB-0D091A)

⚠Ref No.	Part No.	Part Name	Description	Local
MD001	LCA10291-04G	MI-COM & DIST MODULE PWB		
IC704	AT24C32-32WX84	IC	(SERVICE)	

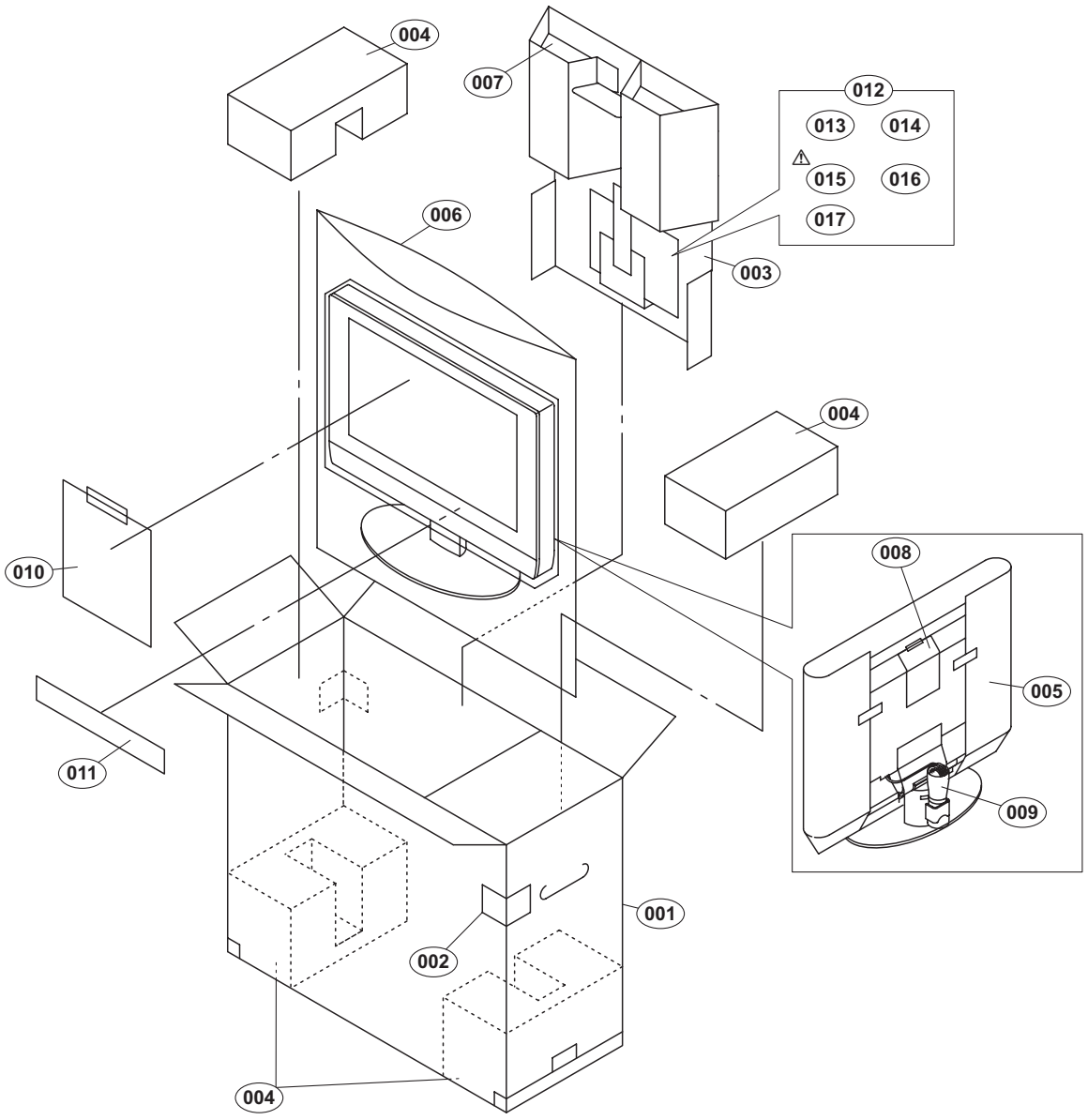
DIGITAL INPUT MODULE P.W.BOARD (32WX84CP-S)

⚠Ref No.	Part No.	Part Name	Description	Local
MD001	32WX84CP-S	DIGITAL INPUT MODULE PWB		

REMOTE CONTROL UNIT PARTS LIST (RM-C13G-1H)

⚠Ref No.	Part No.	Part Name	Description	Local
	R25-8173	BATTERY COVER		

PACKING



PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	001	LC10006-033A	PACKING CASE		
	002	LC20989-001A-H	CORNER LABEL	(x2)	
	003	LC21479-001B	CUSHION		
	004	LC11697-001A	CUSHION ASSY	4pcs in 1set	
	005	LC41664-003A	SET COVER		
	006	CP30974-001	POLY BAG		
	007	RM-C13G-1H	REMOCON UNIT	Inc.POLY BAG	
	008	LCT1515-001A	CAUTION SHEET		
	009	QPA01002305	POLY BAG	10cm x 23cm	
	010	LCT1524-001A	INST SHEET		
	011	LC41748-001A	CARTON SHEET		
	012	QPA02503505P	POLY BAG	25cm x 35cm	
	013	----------	BATTERY	R6P/AA(x2)	
	014	BT-52006-2	WARRANTY CARD		
⚠	015	LCT1594-001A	INST BOOK	English/French	
	016	LCT1528-001A	INST SHEET	English/French	
	017	BT-51034-1	REGIST CARD		

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